Original

# EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE MAYBEURY (OAKLEY) LANDSLIDE PROJECT RFQ NO. DEP14439

## Prepared for:

# West Virginia Department of Environmental Protection

Department of Environmental Protection
Office of Abandoned Mine Lands and Reclamation
601 57<sup>th</sup> Street, SE
Charleston, West Virginia 25304

2000 OCT 29 P 1: **04** 

Prepared by:

CHASING DIVISION STATE OF WY

# Potesta & Associates, Inc.

7012 MacCorkle Avenue, SE Charleston, West Virginia 25304

Phone: (304) 342-1400 Fax: (304) 343-9031 E-mail: potesta@potesta.com

CONTACT: Mr. Dana Burns, Vice President

Signature: <u>Kano J. Ourno</u>

Project No. 0101-08-0503

October 29, 2008



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## EXPRESSION OF INTEREST FOR PROFESSIONAL ENGINEERING DESIGN SERVICES AND CONSTRUCTION MONITORING SERVICES FOR THE MAYBEURY (OAKLEY) LANDSLIDE PROJECT RFQ NO. DEP14439

## 1.0 QUALIFICATIONS

## 1.1 Corporate History and Experience

Potesta & Associates, Inc. (POTESTA) proposes to provide professional engineering design services and construction monitoring services to the West Virginia Department of Environmental Protection, Office of Abandoned Mine Lands & Reclamation (WVDEP, AML). These services will consist of attendance at pre-bid and pre-construction conferences, construction monitoring, providing an updated revised Engineer's Cost Estimate, review of plan and specification and other miscellaneous services as may be required for the Maybeury (Oakley) Landslide Project located in McDowell County, West Virginia. The project will consist of:

- Design of diversion ditches and/or underdrains to transport drainage.
- Regrading, stabilizing, and revegetation of slide area.
- Installing appropriate mine seals at draining portals.
- Regrading, conditioning and revegetation of areas disturbed during construction.

POTESTA is an engineering and environmental consulting firm providing professional services to deliver innovative, cost-effective solutions to complex problems. Our firm is multi-disciplinary and has a diversified practice covering engineering (civil, chemical, environmental, geotechnical, mechanical, and mining), permitting, site characterization and remediation, and general environmental consulting. Civil/site and geotechnical engineering are areas of extensive expertise at POTESTA. We have worked on numerous large projects (university dorms to power plant foundations) throughout the region. Our 12 registered professional engineers have over 225 years of experience among them and are supported by a large group of engineers, designers, surveyors and a landscape architect. Regulatory liaison and environmental compliance are areas of exceptional strength for POTESTA as the President of the company is a former director of the West Virginia Department of Natural Resources, and a Vice President is a former director of the West Virginia Division of Environmental Protection.

Our clients include state, local, and federal government agencies, mining companies, manufacturers, utility companies, waste management companies, chemical companies, architects, attorneys, financial institutions, insurance companies, land developers, and construction companies.

We carry a full line of insurance coverage including general liability, errors and omissions, and workers' compensation; Insurance and Workers Compensation Certificates are included in **Appendix A**. We also have quality control procedures to assist in providing our clients with quality projects.

## POTESTA offers the following professional services.

- ► 404 Permit Preparation and Negotiation
- Acid Mine Drainage Control
- ► Asbestos Inspection
- Benthic and Biological Studies
- CADD Services (AutoCAD 2007, Various Software Design Packages, Digitizing and Plotting)
- ► Chemical Engineering
- ► Civil Engineering
- ► Clean Air Act Compliance
- ► Construction Monitoring
- Corporate Environmental Management
- Design of Slurry Impoundments and Refuse Disposal Sites
- ► Dewatering Plans
- ► Environmental Engineering
- ► Environmental Impact Studies
- ► Environmental Site Assessments
- ► Environmental Audits
- ► Environmental Engineering
- ► Erosion and Sedimentation Control Plans
- Expert Witness and Litigation Support
- Feasibility Studies
- ► Foundation Design
- Geological Services
- Geotechnical Engineering
- Ground and Surface Water Sampling
- Groundwater Investigation and Remediation
- Groundwater Protection Plans
- ► Hazardous Waste Management
- ► Hydrologic and Hydraulic Evaluations
- ► In-Situ and Ex-Situ
  Biostimulation/Bioaugmentation
- Landfill Design and Land Use and Natural Resource Planning
- ► Landfill Closure Plans
- ► Land Use and Natural Resource Planning

- Mining Engineering
- Multimedia Sampling (Air, Fly Ash, Rock, Soil, Water)
- Pollution Prevention and Waste Minimization Planning
- Permitting (Air, FERC, Fly Ash Haulback, Mining, NPDES, Quarry and Solid and Hazardous Waste)
- Post Reclamation Land Uses
- Pre-Blast and Pre-Subsidence Surveys
- Preparation of Construction Documents (Calculations Brief, Construction Drawings, Contractor's Bid Sheet, Engineer's Cost Estimate, QA/QC Manual and Technical Specifications)
- Reclamation Design and Planning
- Reclamation Liability Assessments
- Regulatory Liaison Services
- Risk-Based Environmental Assessment
- ► SARA Title III, TIER II and Form R Inventory and Reporting
- Sewer Line Design
- Site Characterization and Remediation Planning
- Site Design/Planning
- ► Soil Science/Agronomy
- Spill Prevention Control and Countermeasure Plans
- ► Stabilization and Closure of Waste Impoundments
- Stormwater Management and Permitting
- Stream Benthic Macro-Invertebrate Surveys and Toxicity Evaluations
- Stream and Water Restoration
- Subsidence Studies
- Subsurface Investigations
- Surface and Groundwater Monitoring, Statistical Analysis and Reporting
- Surveying (Traditional and Global Positioning System)

- UST Closure and Site Remediation
- UST Installation Monitoring
- Waste Facility Permitting and Design
- Waste Disposal Design

- Water Line Design
- Water/Wastewater Treatment Design
- Wetland Investigation and Delineation, Mitigation Design and Monitoring

POTESTA has the following staff in our Charleston, West Virginia office:

- 18 Engineers, Including 10 Professional Engineers
- 19 Scientists (Biologists, Ecologists, Environmental Scientists, Etc.)
- 3 Geologists/Hydrogeologists/Geological Scientist
- 1 Hydrologist
- 7 Surveyors
- 7 CADD Operators/Designers
- 7 Technicians/Construction Monitors
- 2 Chemists
- 18 Support and Other Staff

POTESTA, since starting in 1997, has grown to almost 100 employees in three offices. Included are 12 registered professional engineers (R.P.E.'s), three registered professional licensed land surveyors (P.L.S.'s), one registered professional geologist, and two PhD's whose specialties include aquatic biology and water quality. POTESTA has assembled a team that has historically served WVDEP, AML on numerous AML projects. In fact our staff has worked on over 70 AML projects for WVDEP (and more in other states) on four different WVDEP, AML contracts dating back into the mid 1980's. We have an ongoing workload with WVDEP, AML.

POTESTA will perform the work for this project from our Charleston, West Virginia office. Our proximity to WVDEP's Charleston office will facilitate immediate response to your needs and allow meetings to be attended within minutes notice; in addition, we can draw upon support from our Morgantown office which also has experience with AML projects. POTESTA emphasizes that we will make a priority commitment to this project.

POTESTA has completed projects involving Civil, Structural, Geological, Hydrological and Reclamation Engineering; Land Use and Natural Resource Planning; Soil Science/Agronomy; Hydrology/Geology; Stream and Water Restoration; and Post Reclamation Land Uses. In addition, POTESTA is currently a contractor to the WVDEP Landfill Closure Assistance Program (LCAP) for surveying, geotechnical and other engineering services for preparing construction documents for reclamation of landfills, and for closure and remediation of underground storage tanks (UST's). We also have open ended statewide contracts with the West Virginia Division of Highways (WVDOH) for survey services and asbestos inspection services. In addition, we have the preeminent staff in West Virginia for addressing issues regarding water quality and regulatory issues since (a) two of our principals are former heads of the state environmental regulatory agency and one was also chief of the water quality regulatory agency, and, (b) we have several PhD's and others with degrees whose specialty is water quality. As a result, POTESTA will provide the required expertise to complete this AML project in a timely, economical, and efficient manner.

POTESTA has assembled a successful team of employees that have historically worked on WVDEP, AML projects. In fact, our staff has 100+ years experience working on WVDEP, AML projects and AML projects in other states. Our staff's direct knowledge of the AML program guidelines and personnel, our familiarity with the applicable state regulations, and our commitment to success will benefit WVDEP, AML.

POTESTA has 10+ employees with experience on WVDEP, AML projects. POTESTA employees have worked on and have experience in the following WVDEP, AML projects:

- ♦ Assessment of Contamination (e.g., PCB's, asbestos)
- ♦ Demolition of Structures
- ♦ Diversion of Stormwater
- ♦ Identifying Acid Mine Drainage
- ♦ Landslides
- ♦ Mine Fires
- ♦ Passive Acid Mine Drainage Treatment
- ♦ Reclamation of Refuse Piles
- ♦ Sealing Mine Portals
- ♦ Stream Relocations
- ♦ Subsidence Assessment and Remediation
- ♦ USCOE Permitting
- ♦ Water Line Design
- ♦ Water Supply Feasibility Studies and Design
- ♦ Inventory of Residential Water Supplies
- ♦ Wetland Assessments

POTESTA has completed or is working on several projects involving AML sites, or projects similar to a WVDEP, AML type project. These include water line design and construction administration and observation, design and permitting of refuse piles and slurry impoundments, evaluating mine drainage from pre-SMCRA sites, reclamation designs for WVDEP, LCAP, landslides, stream monitoring, development of grading plans, mine reclamation liability assessments, watershed assessments including evaluation of impact from AMD including AMD from pre-SMCRA sites, detention pond designs, wetland studies, mine site design and permitting and design of numerous storm water structures.

**Appendix B** contains the executed Request for Quotation form and Purchasing Affidavit form.

The following describes POTESTA's qualifications for the surveying, aerial mapping, subsurface exploration, and laboratory services necessary for this project:

POTESTA proposes to utilize our own survey crews on this project. POTESTA will perform all of the surveying required for this contract using in-house personnel. POTESTA has three licensed professional surveyors with over 40 years of combined surveying experience. Our surveyors are

experienced in all aspects of surveying such as topographic mapping, boundary and property surveys, and construction surveys for layout of work, record drawings, and quantity measurements.

POTESTA's surveyors use state-of-the-art "Field to Finish" equipment such as total station instruments, data collectors, AutoCAD 2007, Autodesk Land Desktop 2007 and Autodesk Civil 3D 2008 design software, computer hardware for data management, and a Hewlett Packard Designjet 5500 color ink jet plotter.

POTESTA is equipped with modern surveying instruments allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products.

POTESTA utilizes state of the art computers and hardware, networked through Windows NT, for interfacing of drafting and surveying departments. Thus, drawing and surveying data files can be shared efficiently.

Surveys and mapping are completed to the standards as outlined by the National Map Standards as well as other applicable quality standards.

Additional information on POTESTA's corporate history and experience is included in the AML Consultant Confidential Qualification Questionnaire included in **Appendix C**.

## 1.2 Experience, Qualifications, and Performance Data of Primary Staff

Primary staff POTESTA commits to this contract and their roles are as follows:

Mr. Dana L. Burns, PE, Vice President at POTESTA, will serve as principal-in-charge for this project. Mr. Burns has served as project manager or principal-in-charge on three open end contracts for WVDEP, AML from 1986 through 1997 totaling over 60 projects. In addition, Mr. Burns has served as the principal-in-charge for four other WVDEP, AML projects since 2003. Mr. Burns' experience includes 28 years of civil and environmental engineering and related projects including water line extensions, sealing portals, regrading refuse, site assessments, mine fires, preliminary feasibility evaluations, detailed design, and preparation of construction drawings, specifications, and bid documents. Mr. Burns will ensure that the AML workload is properly supported.

Messrs. Mark Kiser, P.E., and Terence Moran, P.E., will serve as a project manager/design team leader. Mr. Kiser has served as a project manager/project engineer for over 30 AML projects in West Virginia between 1988 and 1997. Mr. Kiser has 24+ years experience in civil and environmental engineering projects including evaluation, design, preparation of plans and specifications, and construction administration. He has worked on over 60 AML projects as well as extensive experience with the coal industry. Mr. Kiser performs constructability reviews on our projects during and after design. Mr. Kiser is currently POTESTA's project manager for POTESTA's WVDEP,

POTESTA's WVDEP, LCAP contract. Mr. Moran has served as project manager/project engineer or assisted with over 60 AML projects in West Virginia and Virginia between 1989 and 1999. Mr. Moran has 17+ years experience in civil and environmental engineering projects, including evaluation, design, preparation of plans and specifications, and construction administration. Mr. Moran has co-authored multiple papers, including one on the abatement of AMD at the Omega Mine site and another on evaluating AMD of AML sites during preaquisition site assessments. Messrs. Kiser and Moran have worked on AML projects that addressed such technical issues as AMD, sealing portals, regrading refuse, diverting stormwater, landslides, subsidence and water supply. Messrs. Kiser and Moran are both familiar with requirements of AML projects and will ensure that WVDEP is satisfied with POTESTA's work by ensuring that proper QA/QC and timeliness are adhered to.

NOTE: Since POTESTA has 12 professional engineers (P.E.), a combined significant track record with AML projects, POTESTA believes it can handle a substantial AML workload. Hence, POTESTA can adequately staff the Maybeury (Oakley) Landslide Project. POTESTA can assign an additional four design teams to other AML projects if asked to do so.

POTESTA has four other P.E.s with AML and related design experience in Messrs. Vince Ammirato, Bill Drinkard, Patrick Ward, and Ryan McGlothen, who will also serve as design team leaders. Their individual experiences and capabilities are discussed in further detail later in this section and in **Appendix D**.

In addition to the design team leaders, POTESTA has an additional project manager/project engineer in Mr. Chris Grose who has worked on numerous WVDEP, AML projects. Mr. Grose will serve as POTESTA's geotechnical scientist for work on this contract. Mr. Grose currently oversees aspects of geotechnical work at POTESTA and worked on WVDEP, AML projects from 1990 to 1997. Mr. Grose will evaluate slope stability issues with respect to regraded coal refuse.

Abbreviated personal history statements of primary staff and more detailed descriptions of staff experience are presented in the AML Consultant Confidential Qualification Questionnaire in **Appendix C**, and the AML and Related Project Experience Matrix in **Appendix D**.

## 1.3 Experience, Qualifications, and Performance Data of Other Staff

POTESTA has a staff of almost 100 technical and support personnel. Combined with our team of highly experienced subcontractors, POTESTA is exceptionally well suited to: (1) complete surveying and mapping; (2) perform geotechnical services including subsurface exploration and laboratory analysis; (3) design drainage diversion structures such as mine seals, reinforced concrete caps over vertical openings, channels and culverts, perform regrading plans for the refuse areas, and design dewatering plans, if necessary; (4) develop engineering drawings, contract specifications, permit applications and other contract documents; and (5) attend a pre-bid meeting and preconstruction conference as may be required for the Maybeury (Oakley) Landslide Project. POTESTA can conduct all design engineering work required for this project with present personnel.

POTESTA's project managers will be supported by a team of engineers, scientists, surveyors, hydrologists, geologist/hydrogeologists, biologists, CADD operators, and other support personnel from POTESTA's staff. Included are geotechnical scientists and geotechnical engineers such as Mr. Chris Grose and Mr. Patrick Ward, P.E., who have both worked on numerous AML projects in the early to mid 1990's; project engineers such as Daniel Lipscomb, E.I.T., Ryan McGlothen, P.E., Robert Ammirato, E.I.T., Jarrett smith, P.E., and Kenneth Kinder, P.E.; Mr. Vince Ammirato, P.E., a civil engineer with an emphasis in structural engineering who has extensive experience in design of reinforced concrete and steel structures; Mr. Bill Drinkard, P.E., a mining engineer whom has worked on numerous projects involving earthwork, site drainage, AMD, mine land reclamation, calculations, plans and specifications and construction administration; Mr. Denny Kohler, an environmental scientist who was in charge of surface mine reclamation for a major coal company for 18 years and has prepared numerous reclamation plans including reclamation of a coal waste impoundment in Kanawha County; Mr. Victor Dawson, P.L.S., who has worked on developing mapping or performing construction layout on projects dating back into the late 1980's; and POTESTA's team of CADD Operators whom have also worked on AML projects.

Abbreviated personal history statements of key personnel are presented in the AML Consultant Confidential Qualification Questionnaire presented in **Appendix C**. Additional information is included in Section 1.4 "Management Plan and Location of Facilities."

Our corporate and staff's experience involves civil (including water supply systems), structural, geological, hydrological, environmental, mining, geotechnical, and reclamation engineering; land use and natural resource planning; soil science/agronomy; hydrology/geology; surface/underground coal mining; environmental and ecological principles in land reclamation, stream and water restoration, and post reclamation land uses; and contract administration. Our capabilities, qualifications and expertise in design of AML projects are further exemplified in **Appendix E - Service Briefs** and **Appendix F- Project Abstracts**.

POTESTA provides multi-disciplinary services and can perform all of the professional services required under this contract.

## 1.4 Management Plan and Location of Facilities

## **Management Plan**

POTESTA's proposed project organization chart including key staff and subcontractors is shown by Figure 1 in **Appendix G**. Work will be performed at POTESTA's Charleston, West Virginia office or on-site as may be required. Our Charleston location is convenient with respect to WVDEP's Charleston office; the effort will be supported by our Morgantown office if needed.

POTESTA's professional, technical, and support staff have extensive experience on water supply and WVDEP, AML projects. We are well qualified to serve WVDEP on this project. We stand ready to commit the personnel and resources required to complete this project in a timely, technically sound,

and cost-efficient manner. POTESTA's large staff size will allow us to work on this project on an accelerated schedule if necessary.

As shown by Figure 1 in Appendix G, POTESTA's principal-in-charge will be responsible for contract management (administration) and shall coordinate and direct all aspects of the project. The principal-in-charge will review the proposed project, assign a project manager, assemble a project team and appoint key staff to develop a proposed scope of work. The principal-in-charge and project manager will visit the site with WVDEP, AML to review site conditions and the proposed services to be completed and guide the preparation of a detailed proposal and cost estimate. A written proposal including a detailed scope of work and an associated manhour and cost estimate will then be prepared and submitted to WVDEP, AML for review. The project manager will review the proposal with the WVDEP, AML including a task-by-task discussion of work items and the related costs. Upon WVDEP, AML's approval of the proposal, the project manager will arrange for the start of project activities. The principal-in-charge will provide the project manager the required staff necessary to complete the project activities, will review the project budget and schedule during performance of the project, and will provide a final QA/QC review of the documents prior to submittal to the WVDEP. AML. Mr. Dana Burns, P.E. will serve as the principal-in-charge on this project. Day-to-day project activities for this project will be performed under the direction of our project manager, Mr. Mark Kiser, P.E. Mr. Terence Moran, P.E. will serve as a "backup" project manager for quality assurance/quality control. The project manager will develop a detailed step-by-step project work plan so that the project activities are completed in a correct manner, on-budget, and on-time. They will also review work products at intermediate points and prior to project completion. They will conduct project status reports which may include weekly meetings, memos, or telephone calls with the WVDEP, AML project manager as required. The project manager will supervise the day to day work in progress, will coordinate with POTESTA's subcontractors to provide necessary services, and review work products at intermediate points and prior to submittal to the WVDEP, AML.

POTESTA will utilize the appropriate classification of staff to conduct activities required for the project. Our large, experienced staff allows us to respond quickly, provides flexibility, and will provide for the opportunity of high level input from in-house experts on complex multi-disciplinary projects. Our normal method of staffing projects is to assign a small project team with total responsibility for completion of the work to the client's satisfaction and budget. Where necessary, the team can draw on the expertise available within POTESTA's large staff. POTESTA offers a large staff with the efficiency and rates normally associated with a small firm.

WVDEP, AML has indicated that 60 days are required for submittal of deliverables for the Maybeury (Oakley) Landslide Project. We stand ready to meet your time frame. We can provide up to four design teams to complete the required engineering services with an additional two design teams as "backup" to be utilized if needed. The assignment tasks are noted on the design team descriptions on Figure 1 in **Appendix G**. If needed, we can accelerate your schedule.

## **Project Budget Control**

The project manager will be responsible for monitoring the project budget and keeping the principal-in-charge informed of its status. POTESTA's staff enters time into POTESTA's Timetrax computer system on a daily and/or weekly basis. POTESTA's project managers can access Timetrax at any time, thus allowing "real-time" control of project costs. In addition, field representatives routinely keep track of subcontractor costs on a daily basis. Thus we can, in effect, keep track of the total project costs on a weekly basis. Our subcontractors commonly invoice at monthly intervals and there is seldom a discrepancy between our field representative's pay items and our subcontractor's invoice.

## **Schedule Control**

Direct responsibility for schedule control lies with the project manager. Initially, the project manager will review schedule requirements (understood to be 60 days for submittal of preliminary design documents) to see how they can be achieved given the anticipated scope of work. As the project progresses, the project manager will monitor progress and compare it with the established schedule on a weekly basis keeping the principal-in-charge aware of the schedule's status. In this manner, the principal-in-charge can make staff adjustments to allow the project manager to maintain the project schedule. If circumstances develop that make it impossible to maintain the project schedule, the project manager will contact the WVDEP project manager to develop a mutually acceptable adjustment to the schedule and/or work plan.

## **Location of Facilities**

POTESTA will complete the work under this contract in our Charleston, West Virginia office. Our subcontractors are located in the Charleston area or other strategic regions and are quite familiar with the coalfields of West Virginia where the Maybeury (Oakley) Landslide Project is located. Our close proximity to WVDEP's Charleston office will allow the project to be completed in a timely, economical manner as well as provide WVDEP, AML with easy access to us.

## Quality Assurance/Quality Control

Submittals to the WVDEP will be reviewed and commented on by the project manager and the principal-in-charge prior to submittal to the WVDEP. Both the project managers and the principal-in-charge have worked on numerous WVDEP, AML projects, and thus understand the level of detail and expectations for WVDEP, AML projects. POTESTA utilizes standardized Quality Assurance/Quality Control (QA/QC) practices such as consistency checks, color coding of checked copies/calculations, and review of method of measurements versus quantity tallies to insure QA/QC expectations are met.

## 2.0 CLOSING

We look forward to continuing to serve WVDEP, AML on the Maybeury (Oakley) Landslide Project and bring it to completion. Our commitment is to provide quality service, rapid response and project completion, and to exceed your expectations for services performed under this project. We believe the track record of our professionals demonstrates our ability and commitment.

# CORD CERTIFICATE OF LIABILITY

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CHUCER TO THE PARTY OF THE PART	ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE
Wells Ferge ins. Services of West Virginia, inc.	HOLDER, THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
, Box 1551	COMPANIES AFFORDING COVERAGE
Charleston WV 25326-1551 (304) 345-0611	COMPANY A Travelers Indemnity Co of Amer
Potesta & Associates, Inc.	COMPANY  B Travelors Property Cas Ins Co
7012 MacCarkie Avenue SE Charleston, WV 25304	COMPANY C Travelers Indemnity Company
Olimi Legenti, Mr. Marani	COMPANY Special Indepolar Co

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERMOR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES LIMITS SHOWN MAY HAVE BEEN REDUICED BY PAID CLAIMS.

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					MED EXP (Any one person)	\$ 5,000
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DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

RE: DEP14439

CENTER STEHOLDER TALLES STEELS STEELS STEELS

WV DEP - Office of AML&R 501 57th Stroot Charleston, WV 25304

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE 188UING COMPANY WILL ENDEAVOR TO MAIL days written notice to the certificate holder named to the left. BUT FAILURE TO MAIL BUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY

OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES. **AUTHOMIZEDIREPRESENTATIVE** 

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## **IMPORTANT**

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

## DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



CERTIFICATE HOLDER:

POTESTA & ASSOCIATES INC 7012 MACCORKLE AVE SE CHARLESTON, WEST VIRGINIA, 25304-0000

## PRODUCER:

BrickStreet Mutual Insurance Company 400 Quarrier Street Charleston, WV 25301

## INSURED:

POTESTA & ASSOCIATES INC 7012 MACCORKLE AVE SE CHARLESTON, WEST VIRGINIA, 25304-0000

# CERTIFICATE OF INSURANCE

The policy of insurance listed below has been issued to the insured named above for the policy period and coverage indicated. This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy below. Coverage is contingent on the insured's compliance with policy conditions and premium payment.

If the policy is canceled before the expiration date, BrickStreet Mutual Insurance Company will endeavor to mail a written notice to the certificate holder within 30 days of cancelation. Failure to mail the notice shall impose no obligation or liability of any kind upon BrickStreet Mutual Insurance Company.

POLICY NUMBER: WC10013153-05

DATE CERTIFICATE ISSUED: 3-31-2008

POLICY EFFECTIVE DATE: 4-1-2008

**EXPIRATION DATE: 4-1-2009** 

## WORKERS COMPENSATION AND EMPLOYERS LIABILITY

## LIMITS / COVERAGE

[X] WORKERS COMPENSATION - STATUTORY LIMITS

[X] EMPLOYERS LIABILITY LIMITS:

BODILY INJURY BY ACCIDENT: BODILY INJURY BY DISEASE: \$ 100,000.00

EACH ACCIDENT

\$ 500,000,00

POLICY LIMIT

BODILY INJURY BY DISEASE:

\$ 100,000.00

**EACH EMPLOYEE** 

- [ ] WV BROAD FORM EMPLOYERS LIABILITY ENDORSEMENT COVERAGE FOR WV CODE 23-4-2(d)(2)(ii)
- [ ] FEDERAL COAL MINE HEALTH AND SAFETY ACT COVERAGE ENDORSEMENT COVERAGE FOR WV CODE 23-4b-1 FEDERAL BLACK LUNG COVERAGE

SPECIAL PROVISIONS IF ANY:



TOOR

RFQ COPY

TYPE NAME/ADDRESS HERE

Charleston, WV 25304

Potesta & Associates, Inc.

7012 MacCorkle Avenue, Se

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

# Request for Quotation

sfonumber DEP14439

∞PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF CHUCK BOWMAN 304-558-2157

ENVIRONMENTAL PROTECTION DEPARTMENT OF OFFICE OF AML&R 601 57TH STREET SE CHARLESTON, WV

H-B HO

25304 304-926-0499

DATE PF	INTED 1	TERMS OF SALE	SHIP	ViA	FOB	FREIGHTTERMS
09/18 BID OPENING DAT	3/2008   10/39					
LINE	QUANTITY	9/2008   uon   SA1	T ITEMNU		OPENING TIME UNITERICE	01:30PM AMOUNT
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P. Control of the Con	PROTECTION, PROFESSIONA	IS SOLICE	ETING EXPRE	SSIONS	OF INTEREST FO	OR
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	SPECIFICATION	ows.	~			
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			REVERSE SIDE PORT		DITIONS	
SIGNATURE	Dana L.			TELEPHONE (30	04) 342-1400	DATE October 29, 2008
TITLE Vice P	resident	FEN 311509	<del>3</del> 066.		ADDRESS CH/	ANGES TO BE NOTED ABOVE

# STATE OF WEST VIRGINIA Purchasing Division

## PURCHASING AFFIDAVIT

## **VENDOR OWING A DEBT TO THE STATE:**

**West Virginia Code** §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

## PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

West Virginia Code §21-1D-5 provides that: Any solicitation for a public improvement construction contract shall require each vendor that submits a bid for the work to submit at the same time an affidavit that the vendor has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code. A public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the West Virginia Code and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the West Virginia Code may take place before their work on the public improvement is begun.

## **ANTITRUST:**

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

#### LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

## **CONFIDENTIALITY:**

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and is in compliance with the requirements as stated.

Vendor's Name: P	otesta & Associates, Ir	nc Dana L. Burns	
A45 Oi		LBurns	D. L. October 20, 2009
Authorized Signatu	re:		Date: October 29, 2008

W. AM	WEST VIRGINIA DE AML CONSULTANT CO	DEPARTMENT CONFIDENTIAL	ENVIRONMENTAL PROTECTION OUALIFICATION OUESTIONNAI	PROTECTION OUESTIONNAIRE	N AIRE Attachment "B"
DPOTEOUT NAME	1	77 TTTTTTT	- 12	•	
Maybeury (Oakley) Landslide	DAIR	29,	1, IBAK) October, 2008	N H H	311509066
1 FTRM NAME	2 HOME	OFFICE BIRTNESS	NESS ANDRESS	3 FODMED	TAM WAYNE
Potesta & Associates, Inc.	5	leston,	st Virgin	4 N/A	
4. HOME OFFICE TELEPHONE	5. ESTABLISHED (YI	(YEAR) 6.	RSHI		6a. WV REGISTERED DBE
(304) 342-1400	1997		individuai <u>korp</u> o Partnership Joint	corporation Joint-Venture	(Disauvanicayed business Enterprise) YES
7. PRIMARY AML DESIGN OFFICE:	ADDRESS/ TELEPHONE,	E/ PERSON IN	CHARGE/ NO.	AML DESIGN PERSONNEL	EACH OFFICE
7012 MacCorkle Avenue, SE,	Charleston, WV 25.	25304 / (304)	342-1400 / Dana L.	Burns / 82	
8. NAMES OF PRINCIPAL OFFICERS OR MEMBERS Ronald B Potesta President	OR MEMBERS OF FIRM	RM 8a.	NAME, TITLE, & TE	TELEPHONE NUMBER	ER - OTHER PRINCIPALS
Dana L. Burns, Vice President	and		N/A		
9. PERSONNEL BY DISCIPLINE	ssident and secretary	ALY		**************************************	
TANTATE THE STATE OF THE STATE					
ARCHITECTS TO BIOLOGIST	Z ECOLOGISTS  I ECONOMISTS  RIECTPICAL ENG	OGAHNLUNG	LANDSCAPE A MECHANICAL	AKCHITECTS ENGINEERS	
		ENGINEER		ers ITS I/REGIONAL	1 INFORMATION ENGINEERS 1 INFORMATION TECHNOLOGIST 1 SAFRTY/TUDIISTRIAL HYGIRNE
12 CIVIL ENGINEERS 6 CONSTRUCTION INSPECTORS	3 GEOLOGISTS HISTORIANS		1 SANITARY ENGINEERS 4 SOILS ENGINEERS	ERS	0
DESIGNERS 10 DRAFTSMEN	1 HYDROLOGISTS 1 TOXICOLOGIST		TCATION V	WRITERS SCIENTIST	
					96 TOTAL BEDSONNET
TOTAL NUMBER OF WV REGISTERED PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: **RPEs other than Civil and Mining must provide supporting documentation	STERED PROFESSIONAL and Mining must pro	NAL ENGINEERS provide support	NEERS IN PRIMARY OFFICE: supporting documentation	10 that qualifies	es them to
- 1	>4 £2	THE		***	
		***************************************			
		***************************************			
10. HAS THIS JOINT-VENTURE WORKED	KED TOGETHER BEFORE?	KE?	S ON O	N/A	

11. OUTS' 'KEY CONSULTANTS/SUB-CONSULTANTS ANTICIPATED Ques nnaire".	TO T USED. Attach "AML	Consultant Confidential Quali' ation
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Ligital Graphic Mapping 172 Imboden Drive, Suite 13 Winchester, Virginia 22603	Aerial Photography and Mapping	X Yes
NAME AND ADDRESS: Sturm Environmental Services Inc	SPECIALTY:	WORKED WITH BEFORE
Brushy Fork Road Bridgeport, West Virginia 26330	Environmental and Coal Related Laboratory	X Yes
	- I The state of t	No
NAME AND ADDRESS: Test Boring Services	SPECIALTY:	WORKED WITH BEFORE
140 Mong Road Scenery Hill, Pennsylvania 15360	Soil and Rock Boring	X Yes
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Ackennell & Associates W V, Inc. PO Box 416, HUB Industrial Park Nitro West Virginia 25142 0416	Geotechnical Laboratory	X Yes
intel, west virgima 20170-0710		No No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		Ño
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
NAME AND ADDRESS:	SPECIALTY:	NORKED WITH BEFORE
		Yes
		No
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		Yes
		No

12. A	A Is your firm experienced in Abandoned Mine Lan' Remediation/Mine Reclamation Engineering?	
	Description and Number of Projects: POTESTA's principal-in-charge, Dana L. Burns, P.E. and two project managers, Messrs. Mark Kiser, P.E. and Terence Moran, P.E. have each worked on over 60 AM projects dating back to 1986, including landslide investigation and abatement, mine subsidence stabilization projects, acid mine drainage treatment, refuse piles, mine drainage, mine portal seal, and water supply projects. POTESTA has 10+ staff with experience on AML projects. POTESTA principal engineers have extensive experience with preparing design plans for refuse piles. Many of the previous AML projects won reclamation awards including: Bear Run Refuse; Kimball Refuse Piles; Owings Mine Complex; Pine Creek (Omar) Refuse; Turner-Douglas Complex; Grass Run Refuse. These projects were completed by Dana Burns, Mark Kiser, and Terry Moran.	and two over 60 AML osidence portal s. POTESTA's lles. Many l Refuse
	ON	
B.	B. Is your firm experienced in Soil Analysis?	
	Description and Number of Projects: POTESTA's staff is experienced in all aspects of soil analysical including geotechnical and environmental soil analysis. POTESTA's staff has worked on 30+ AML, projects involving soil science, including slope stability and revegetation. POTESTA is experienced in soil analysis as it relates to this project. POTESTA's principal engineers have developed and implemented plans for nutrient and lime requirements testing to determine revegetation requirements, acid-base accounting of rock samples to evaluate the potential of excavated materials to generate acidity, and analysis of coal refuse to determine the potential reprocessing.	soil analysis, 1 30+ AML, is neers have ne ial of potential for
	ON	
٦.	C. Is your firm experienced in hydrology and hydraulics?	**************************************
	YES Description and Number of Projects: POTESTA's staff is experienced in hydrology and hydraulics as it relates to AML projects in West Virginia. POTESTA's staff has worked on 60+ AML projects that involved sizing channels, culverts, and waterlines. POTESTA has developed well over 100 storm water management plans for mines, industrial facilities and new site development projects throughout West Virginia.	<pre>' and hydraulics as AML projects that . over 100 storm it projects</pre>
	NO	
D.	D. Does your firm produce its own Aerial Photography and Develop Contour Mapping?	
	YES Description and Number of Projects: POTESTA's staff routinely develop contour mapping for use wit design. We subcontract aerial mapping development, but complete the ground control necessary for developing mapping. On smaller projects, we perform the topographic survey work and subsequently develop the contour mapping. POTESTA has completed 200+ mapping development projects in the last five years.	or use with essary for bsequently n the last
	NO	

(Include any experience your firm has in .nining.) 'sign? evaluation of aquifer degradation as a result Is your firm experienced in domestic waterline

designs for municipalities, WVDEP AML, and private utilities. POTESTA's staff includes one project manager, Terence C. Moran, PE, who has managed design of numerous AML waterlines, including Regional Water Supply project. We are also exceptionally well qualified to evaluate aquifer degradation, including aquifer degradation by AML sites. Our staff has worked on 80+ evaluations of aquifer degradation. POTESTA has performed over 30 water line design projects totaling several 20+ mile Cow Creek-Sarah Ann Extension and 30+ mile/2,800 GPM Water Treatment Plant Mill Creek POTESTA's staff has worked on waterline designs and water treatment plant Description and Number of Projects: POTESTA's staff is exceptionally experienced at domestic hundred miles of installed water line. YES

Q

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Is your firm experienced in Acid Mine Drainage Evaluation and Abatement Design?

drainage evaluation and abatement design. POTESTA's staff has worked on 30+ projects involving AMD to prevent/abate AMD generation. Additionally, we worked extensively with Elk Run Coal Company to devise a plan to limit AMD generation and to treat the remaining AMD. WVDOH, among others with acid-base accounting evaluations and the subsequent development of plans In both cases, many of the projects Description and Number of Projects: POTESTA has completed numerous projects addressing acid mine We have worked extensively with Anker Energy, Dominion Generation, and the evaluation and 10+ projects involving AMD abatement design. involved AML sites. YES

13. PER? AL HISTORY STATEMENT OF PR. data ut keep to essentials)	STATEMENT OF PRINCIPALS AND ASSOCIATE? \( \mathbf{ssp0} \) essentials)	TSPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Burns, Dana L.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC
Vice President	19	28	EXPERIENCE: 17
Brief Explanation of Responsibilities	w.	7/0000000000000000000000000000000000000	- AMPRIANCE AND
Mr. Burns will serve as principal-in-charge Mr. Burns has served as the project manager	for	significant three open e	experience with AML type projects.
1986 through 1997, totaling over 60 project will be identified. He will	s. nate	orojects. He will ensure the personnel required to efficiently complete coordinate contract issues with the State of West Virginia.	ently complete this a.
EDUCATION (Degree, Year, Specialization) MS, 1979, Civil Engineering with EBS, 1978, Civil Engineering	zation) with Environmental Engineering Emphasis	Emphasis	
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	IONS	REGISTRATION (Type, Year, St	State)
West Virginia Coal Association	7 2 2	E .	
society of tivil and finia Association of Consulting Engineeri	Consulting Engineers Ouncil - Trans Committee	FE, 1995, WV PS, 1995, WV	
STORY STATEMENT OF	AND ASSOCIATES	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)	· · · · · · · · · · · · · · · · · · ·	YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	MESTIC ESIGN
Chief Engineer	16	23	EXPERIENCE: 17
Brief Explanation of Responsibilities	W	Table and the second	The state of the s
As Chief Engineer, with significant expedrainage channelization, he will serve and QA/QC for the various draft submiss	perience in coal refuse as a design team leader sions and final construc	esign and mine r 11 also provide	oortal closures and constructability reviews
EDUCATION (Degree, Year, Specialization)	ion)		
BS, 1984, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	IONS	ION (Type, Year,	State)
		ediation	Specialist, 1998, WV

13. PERS AL HISTORY STATEMENT OF PR date at keep to essentials)	PRINCIPALS AND ASSOCIATE? FSPONSIBLE FOR AML PROJECT DESIGN (Furnish comple	KSIBLE FOR AML PROJECT DESIGN	(Furnish comple
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Moran, Terence C. Senior Engineer I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 18	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 18
Brief Explanation of Responsibilities	W.C.	NAMES OF THE PROPERTY OF THE P	
Mr. Moran will serve as project manage subconsultants. Mr. Moran has served between 1989 and 1999. He will set th the principal designers of the reclams	er cas	design : 60 Al ısis.	design team members, and : 60 AML projects in West Virginia :sis. He will also serve as one of
EDUCATION (Degree, Year, Specialization)	cion)	A CONTRACTOR CONTRACTO	
MS, 1989, Civil Engineering BS, 1987, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	CIONS	REGISTRATION (Type, Year, St	State)
American Society of Civil Engineers	neers	PE, 1996, WV PE, 1998, VA	
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR	ISIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
Taylor, Patrick A. Senior Engineer II	1.7	EXPERIENCE: 17	WATERLINE DESIGN EXPERIENCE: 12
Brief Explanation of Responsibilities	83	Modern Andrews Communication C	
Mr. Taylor will serve as a project engineer, technical specifications, bid forms, and cost consisting of emergency slide remediation, ruslurry pond reclamation. Mr. Taylor also sesturface mining permitting, design and reclamation.	includi t estima efuse fi rved as ation	and neer pandc nsult	n, and preparation of drawings, Jineer experience in AML projects abandoned portal closures, and consulting firm responsible for
EDUCATION (Degree, Year, Specialization)	:ion)		TO THE PROPERTY OF THE PROPERT
MS, 2006, Engineering Management BS, 1988, Civil Engineering	ent		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	SNOI	REGISTRATION (Type, Year, St	State)
American Society of Civil Engi	Bngineering	PE, 1994, WV	

13. PER. AL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATE. ESPONSIBLE data but keep to essentials)	SIBLE FOR AML PROJECT DESIGN	(Furnish compless
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE: YEARS  Lipscomb, Daniel H.  Experience: II	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 1+
Brief Explanation of Responsibilities		Police immonstrates a manufactural de la dela de
Mr. Lipscomb has extensive experience in design and permitting of water supply to gain easements. Mr. Lipscomb also has significant experience in subsurface	supply	systems and interaction with the public explorations and soil evaluations.
EDUCATION (Degree, Year, Specialization)		T T T T T T T T T T T T T T T T T T T
BS, 2002, Civil Engineering Technology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St	State)
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE data but keep to essentials)	SIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
YEARS OF AML DESIGN EXPERIENCE: YEARS Potesta, Ronald R. EXPER	YEARS OF AMI, RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		
As President, Mr. Potesta directs the full resources of the firm to me WVDEP.	the firm to meet the complete requirements of this project for	ents of this project for
EDUCATION (Degree, Year, Specialization)	ON THE PROPERTY OF THE PROPERT	***************************************
MS, 1975, Economics with a Concentration in Mineral Economics, E. BS, 1971, Business Administration	s, Econometrics, and Micro Economics	conomics
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  Commissioner, Ohio River Valley Water Sanitation  Commission; Board of Directors, WV Chapter of the Nature  Conservancy; National Institute for Chemical Studies; WV  Environmental Institute; WV Manufacturers Association	REGISTRATION (Type, Year, St.	State)

13. PERL AL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATEL REPR	ESPONSIBLE FOR AML PROJECT DESIGN (Furnish comple	N (Furnish comple
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
McCoy, Laidley Eli Vice President	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		P. (Additional management of the second manage
Dr. McCoy will serve as a back-up principal-in-charge. In addition, Dr. McCoy managenate science division of the company. He will coordinate required environmental completion of this reclamation design.	yes the e support	entire environmental and services for the
EDUCATION (Degree, Year, Specialization) PhD, 1981, Aquatic Ecology MS, 1974, Biological Science BS, 1972, Zoology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, St	State)
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPO data but keep to essentials)	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
Grose, Christopher A. Senior Engineering Associate	YEARS OF AML RELATED DESIGN EXPERIENCE: 18	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10
Brief Explanation of Responsibilities		
Mr. Grose will coordinate the drilling and geotechnical analysis of borrow sites for soil cover, and investigation and design of smines and recommendations for mine seals.	analysis for the refuse slope stability design, identification sign of solutions for subsurface hydrogeology within the deep	refuse slope stability design, identification for subsurface hydrogeology within the deep
EDUCATION (Degree, Year, Specialization)		The state of the s
MS, 1990, Geological Engineering BS, 1988, Civil Engineering		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS American Society of Civil Engineering Association of Engineering Geology Society of American Military Engineers	REGISTRATION (Type, Year, State) Licensed Remediation Specialist,	State) Specialist, 1998, WV
	The second secon	

13. PERLLAL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATE ARSPONSIBLE	KSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Ammirato, Vincent J. Senior Engineer I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 10	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 6
Brief Explanation of Desnonsibilities		T THE PROPERTY OF THE PROPERTY	
DIECT EXPLANACION OF RESPONDIBLICIES			
Mr. Ammirato will provide structural engineering Columbia Gas in plant design and pipeline distrilthis project may have.	will provide structural engineering that may be required in plant design and pipeline distribution will be well sumay have.	ed for this project. His suited for the possible	extensive background with structural requirements
EDUCATION (Degree, Year, Specialization)	nc)		* Perconantina del constantina
BS, 1970, Civil Engineering			
MEMBEDSHIP IN DDOFFSSIONAL OPCANITANTONS		77	The state of the s
		lype, rear, 80, WV	state)
		РЕ, 1992, РА РЕ, 1992, ОН	
		1993,	
13. PERSONAL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPONSIBLE	ISIBLE FOR AML PROJECT DESIGN (Furnish	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)	-	YEARS OF EXPERIENCE	
A.	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN	YEARS OF DOMESTIC
Ward, Patrick E.		EXPERIENCE:	ESIGN
Senior Engineer I	4	10	EXPERIENCE: 2
Brief Explanation of Responsibilities		Model National Control of the Contro	
Mr. Ward will serve as a project engineer and ha project engineer on refuse piles, mine drainage,	has extensive ge, and subside	experience on WVDEP, AML projects, havin ence projects in the early to mid-1990's.	having served as a 990's.
EDUCATION (Degree, Year, Specialization)	(uc	* TANGET OF THE PROPERTY OF TH	
MS, 1992, Civil Engineering (Gec BS, 1990, Civil Engineering	(Geotechnical)		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	A TOTAL CONTRACTOR AND	REGISTRATION (Type, Year, St	State)
	NAME OF THE PROPERTY OF THE PR	PE, 1997, WV	

13. PER. AL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATEESPOI	SPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple.
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
McGlothen, Ryan K. Senior Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 11	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 7
Brief Explanation of Responsibilities			
Mr. McGlothen will serve as a project and preparation of the drawings and te earthwork design, and monitoring of dr	a project engineer on this project. Ings and technical specifications. He ring of drilling, as well as hydrolog	sproject. Mr. McGlothen will assist with sations. He has extensive experience with as hydrologic and hydraulic design.	h design calculations h slope stability,
EDUCATION (Degree, Year, Specialization)	on)	- Continue and the Cont	
BS, 1996, Civil Engineering			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	SNC	REGISTRATION (Type, Year, St	State)
American Society of Civil Engineers	eers	PE, 2002, WV	
13. PERSONAL HISTORY STATEMENT OF PRIN data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPO	RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Kohler, Dennis J. Staff Scientist I	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 33	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities	The second secon	- Political and the state of th	- Partition and a second and a
Mr. Kohler will serve as a project scientist extensive experience with the coal mining, ha responsible for reclamation of surface operat	for issues regarding ving worked for the cions for over 15 year	<pre>f reclamation, including revegetation. Mr. coal industry for numerous years and being ars.</pre>	etation. Mr. Kohler has ars and being directly
EDUCATION (Degree, Year, Specialization)	(uc		
BS, 1977, Environmental Science	and Resource Management		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	SNC	REGISTRATION (Type, Year, St	State)

13. PERL. AL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATEL data but keep to essentials)	ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple
NAME & TITLE (Last, First, Middle Int.)	YEARS OF EXPERIENCE	
Sedosky, Timothy B. Staff Scientist I	ENCE: YEARS OF AML RELATED DESIGN EXPERIENCE: 12	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		A CONTRACTOR CONTRACTO
Mr. Sedosky will review the site for possible wetlands and delineate potential reclamation activities. He will prepare required permits and mitigation.	, as required, wetland to the WVDNR and US COE	areas to be impacted by ! for wetland disturbance
EDUCATION (Degree, Year, Specialization)		
BS, 1995, Wildlife and Fisheries Resource		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)	ite)
13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES data but keep to essentials)	ASSOCIATES RESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
	1	
Litwinowicz, Dennis L. Staff Scientist I	EXPERIENCE: 28	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE:
Brief Explanation of Responsibilities		T T T T T T T T T T T T T T T T T T T
Mr. Litwinowicz will serve as a project geologist, includin assistance on evaluation of other geologic activities.	including observation of subsurface exploration activities andes.	tion activities and
EDUCATION (Degree, Year, Specialization)		T THE COLUMN
ology a		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, Year, State)	ite)
American Association of Petroleum Geologists	Certified Petroleum Geologist,	ologist, 1984

13. PERS. AI HISTORY STATEMENT OF PR data but keep to essentials)	PRINCIPALS AND ASSOCIATES KESPON	AND ASSOCIATES **ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Dawson, Victor M. Survey Supervisor	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 25	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 10
Brief Explanation of Responsibilities	(S)	A THE WHITE AND A THE WASHINGTON TO THE WASHINGT	
Mr. Dawson will coordinate required surveying for aerial m topographic surveys, boundary surveys and/or property and significant existing drainage courses not clearly defined	<pre>puired surveying for aerial mapping control surveys and/or property and deed research, courses not clearly defined in the aerial name</pre>	if needed, establish survey of boring loca mapping.	ish construction benchmarks, locations and profiling
EDUCATION (Degree, Year, Specialization)	ion)	muliminate as a five.	7,107
AS, 1983, Surveying			
IAL ORGANIZ	SNOI	REGISTRATION (Type, Year, St	State)
American Congress Surveying and Mapping West Virginia Association of Land Surveyors North Carolina Society of Surveyors South Carolina Society of Surveyors	g and Mapping of Land Surveyors Surveyors Surveyors	PS, 1988, NC PS, 1989, SC PS, 1993, WV	
13. PERSONAL HISTORY STATEMENT OF PR data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPONSIBLE	KSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Osborne, Ralph E. CADD Designer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 31	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 15
Brief Explanation of Responsibilities	January 1978		
Mr. Osborne will provide the CADD suppreduce survey data at booster station design.	oort in preparation of and water storage tank	construction drawings for the project. : sites to provide sufficient mapping t	ect. He will also ng to complete the
EDUCATION (Degree, Year, Specialization)	ion)		
AS, 1983, Mining Technology			
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	TONS	REGISTRATION (Type, Year, St	State)

13. PERS. AL HISTORY STATEMENT OF PR. data but keep to essentials)	PRINCIPALS AND ASSOCIATESESPO	ESPONSIBLE FOR AML PROJECT DESIGN	(Furnish comple.
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Sankoff, Michael B. CADD Designer/Supervisor	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 20	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 9
Brief Explanation of Responsibilities	ا. ئ		7. 1000
Mr. Sankoff will provide the CADD suj survey data to provide sufficient maj	support in preparation of const: mapping to complete the design.	construction drawings for the project.sign.	ect. He will reduce
EDUCATION (Degree, Year, Specialization)	ion)	And the desirement of the second of the seco	
BS, 1987, Industrial Management AS, 1986, Drafting and Design Engineering TAS, 1986, Mechanical Engineering Technology	Industrial Management Drafting and Design Engineering Technology Mechanical Engineering Technology		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	LONS	REGISTRATION (Type, Year, St	State)
13. PERSONAL HISTORY STATEMENT OF PR. data but keep to essentials)	PRINCIPALS AND ASSOCIATES RESPONSIBLE	NSIBLE FOR AML PROJECT DESIGN	(Furnish complete
NAME & TITLE (Last, First, Middle Int.)		YEARS OF EXPERIENCE	
Ammirato, Robert J. Engineer	YEARS OF AML DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE: 4	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4
Brief Explanation of Responsibilities	Total Control of the	Fortital management of the control o	A CANADA MANAGAMENTA MANAGAMEN
Mr. Ammirato will serve as a project engineer preparation, design, technical specifications, in water supply and waste water system design,	for the project, bid forms, cost permitting, and	including hydraulic calculations, estimates, and field work. He ha regulations.	ions, layout, drawing He has extensive experience
EDUCATION (Degree, Year, Specialization)	ion)	***************************************	manufacture de la constitución d
BS, 1999, Mechanical Engineering	bu		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	LONS	REGISTRATION (Type, Year, St	State)
		EIT, 1999, VA	

MAME & TITLE (Last, First, Middle Int.)  Kinder, Kenneth K.  Brief Explanation of Responsibilities  Mr. Kinder has extensive experience in hydrologic and hydraulic of coal ash disposal facilities and preparation of cost estimates.  EDUCATION (Degree, Year, Specialization)  BS, 2003, Civil Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONAL But keep to essentials)  NAME & TITLE (Last, Middle Int.)  Smith, Jarrett M.  Engineer II  Engineer II  Engineer II  Engineer II  Engineer II  Engineer II  Engineer II			
er, Kenneth K.  neer  anation of Responsibilities has extensive experience i isposal facilities and prep (Degree, Year, Specializati IN PROFESSIONAL ORGANIZATI Lt keep to essentials) LE (Last, First, Middle Int.)  1, Jarrett M. neer II anation of Responsibilities		YEARS OF EXPERIENCE	
anation of Responsibilities has extensive experience i isposal facilities and prep (Degree, Year, Specializati 2003, Civil Engineering IN PROFESSIONAL ORGANIZATI at keep to essentials) LE (Last, First, Middle Int.)  1, Jarrett M. neer II anation of Responsibilities	DESIGN EXPERIENCE:	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 3
has extensive experience is isposal facilities and preposal facilities and preposate, Year, Specialization of Reporting IN PROFESSIONAL ORGANIZATION REPORT STATEMENT OF PRINCE (Last, First, Middle Int.)  10, Jarrett M.  11, Jarrett M.  12, Jarrett M.  13, Jarrett M.  14, Jarrett M.  15, Jarrett M.			
(Degree, Year, Specializati 2003, Civil Engineering IN PROFESSIONAL ORGANIZATI AL HISTORY STATEMENT OF PRI LE (Last, First, Middle Int.)  1, Jarrett M. neer II anation of Responsibilities		design as well as subsurface e	explorations, design of
IN PROFESSIONAL ORGANIZATI IN PROFESSIONAL ORGANIZATI AL HISTORY STATEMENT OF PRI LE (Last, First, Middle Int.)  1, Jarrett M.  neer II anation of Responsibilities	****		
IN PROFESSIONAL ORGANIZATI AL HISTORY STATEMENT OF PRI LE (Last, First, Middle Int.)  1, Jarrett M.  neer II  anation of Responsibilities			
PERSONAL HISTORY STATEMENT OF PRIdata but keep to essentials)  & TITLE (Last, First, Middle Int.)  Smith, Jarrett M.  Engineer II  f Explanation of Responsibilities	· · · · · · · · · · · · · · · · · · ·	REGISTRATION (Type, Year, St	State)
PERSONAL HISTORY STATEMENT OF PRIdata but keep to essentials)  & TITLE (Last, First, Middle Int.)  Smith, Jarrett M.  Engineer II  Explanation of Responsibilities		PE, 2008, WV	
& TITLE (Last, First, Middle Int.) Smith, Jarrett M. Engineer II f Explanation of Responsibilities	ASSOCIATES RESPONSIBLE	SIBLE FOR AML PROJECT DESIGN	(Furnish complete
Smith, Jarrett M. Engineer II Explanation of Responsibilities		YEARS OF EXPERIENCE	
Explanation of	***************************************	YEARS OF AML RELATED DESIGN EXPERIENCE:	YEARS OF DOMESTIC WATERLINE DESIGN EXPERIENCE: 4
	- The process of the control of the		
Mr. Smith has been involved extensively with developm preparation of NPDES stormwater construction permits. grading plans and quantity/cost estimates.	ΈE	evelopment of hydrologic and hydraulic calculations including ermits. He also has significant expertise in the development	ons including he development of site
EDUCATION (Degree, Year, Specialization)	The state of the s	Annual Proposition and the Control of the Control o	
BS, 2002, Civil Engineering			
	The first state of the state of		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS		REGISTRATION (Type, Year, St	State)
National Society of Professional Engineers		PE, 2008, WV	

Ype, Year, State)	Drinkard, William F. III  Senior Engineer I  Senior Engineer I  Brief Explanation of Responsibilities  Mr. Drinkard Will serve as a project engineer and ha areas, mine facility construction utilities, access Mr. Drinkard Will prepare NPDES permit applications drainage calculations.  MS, In Progress, Environmental Engineering MBA, 1981, Business Administration BS, 1980, Mining Engineering  MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS  MAME & TITLE (Last, First, Middle Int.)  Satior Scientist I  Brief Explanation of Responsibilities  Mr. Junker Will provide as needed geological/hydroge  MS, 1990, Hydrogeology and Geology  MS, 1990, Hydrogeology and Geology  BS, 1973, Geology	YEARS OF EXPERIENCE:  SAFERIENCE:  SAFERIENCE:  SAFERIENCE:  SAFERIENCE:  SAFERIENCE:  SAFERIENCE:  SOCIATES RESPONSIBLE FOR AML PROJE  SOLOGICAL SELVICES for this project  SOLOGICAL SELVICES for this project  SOLOGICAL SERVICES FOR THIS PROJECT  SOLOGICAL SELVICES FOR THIS PROJECT  SOLOGICAL SERVICES FOR	WATERLINE DESIGN  WATERLINE DESIGN  EXPERIENCE: 7  EXPERIENCE: 7  EXPERIENCE: 7  Tal closings. In addition, wher required storm and mine  Year, State)  Year, State  DESIGN (Furnish complete  WATERLINE DESIGN  EXPERIENCE:  1.
Association Registered Professional Geologist, 1993,	NI	(Type,	1
Remediation Spe	National Groundwater Association	Registered Profes	nal Geologist, 1993, Specialist, 1998, WV
Newcaraci Spectarise, 1990,		ジージージンコンパーグ ノスマイン ヘイボー	opectation, 1990,

14. PROV. JE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN 1 PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE AM. DESIGN SERVICES
Microsoft Office XP (Excel, Access, Word, PowerPoint)
WordPerfect 11
Adobe PageMaker 7 (Publication Software)
MicroStation (Allows users to create 3D models of permanent assets - the models and all of their components are electronic simulations of real-world objects); used for CADD drawing preparation.
Autodesk Land Desktop 2007 (3D modeling software that provides topo analysis, real-world coordinate systems, volume totals, roadway geometry.)
Haestead Methods (Numerous software packages used for designing storm water structures [e.g., channels, culverts, ponds, etc.] and water distribution systems.)
MapTech, Terrain Navigator (Combines regional collections of topo maps with powerful PC navigation software for 2D/3D viewing, customizing, printing and GPS use.)
AutoCAD, 2007 and 2008 Used for preparing CADD drawings.
Softdesk 8.0 Civil/Survey Design Software

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PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
Lick Creek Waterline Extension - Phase I, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$1,200,000	50%
Town of Ceredo Water Distribution System Upgrade - Contract No. 1, Ceredo, WV	Town of Ceredo PO Box 691 Ceredo, WV 25507	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$830,500	50%
Town of Ceredo Water Distribution System Upgrade - Contract No. 2, Ceredo, WV		Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$884,872	50%
Wash Branch Waterline Extension, Boone County, WV	Massey Coal Services 315 70 <sup>th</sup> Street, SE Charleston, WV 25304	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$550,000	20%
Hatfield-McCoy/Water Ways Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	Design and permitting associated with extension of waterline including preparation of drawings, specifications, and contract documents and administration.	\$900,000	20%
Spruce Laurel Stream Monitoring, Boone County, WV	WVDEP - AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	Post-grouting stream monitoring.	\$3,000,000 (Est.)	15% %

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PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE
. Closure Various ental ion Proje	Solutia, Inc. 1 Monsanto Road Nitro, WV 25143	Preparation of closure designs, construction drawings and specifications, environmental sampling, and regulatory liaison.	\$4,000,000	70%
Fleming Landfill Sewer Line, 2 miles of Sewer Line, Kanawha County, WV	WVDEP Office of Waste Management 1356 Hansford Street Charleston, WV 25301	Mapping development, design of sewer system, and preparation of drawings, specifications, and cost estimate.	\$1,100,000	\$66
Pocahontas County Landfill Expansion, Closure, and Operations Consulting Dunmore, WV	Pocahontas County Solid Waste Authority 910-C Tenth Avenue Marlinton, WV 24454	Design and permitting associated with expansion of the landfill including preparation of drawings, specifications, and contract documents and administration.	\$400,000	85%
The Villages at Coolfont, Morgan County, WV	Berkeley Springs Develop, LLC 99 N. Washington Ave. Berkeley Springs, WV	Engineering design and permitting for 1300 home community including water treatment plant and distribution system, wastewater treatment plant and collection system, roads, stormwater management system, and property surveys.	\$50,000,000 Excluding Home Construction Costs	80% (Design)
Fort Martin Power Station Coal Combustion By-Product Landfill Expansion, Monongalia County, WV	Allegheny Energy Supply 800 Cabin Hill Drive Greensburg, PA 15601	Wetland delineation, engineering design, and permitting for a 100-acre landfill including synthetic liner system, leachate pumpback system, stormwater management system, and access roadways.	\$25,000,000	90% (Design)

15. CUR! T ACTIVITIES ON WHICH YOUR FIRM IS	-	THE DESIGNATE	RECORD	
				The second secon
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF	NATURE OF YOUR FIRM'S RESPONSTRILTY	ESTIMATED CONSTRUCTION	PERCENT COMPLETE
Site Assessment and	WVDEP	Site assessment to	\$3.000.000	%00
Closure/Capping Plan	Office of Waste			(Construction)
for Jackson County	Management	with 33CSR1,		
Landfill, Ripley, WV	1356 Hansford Street	engineering design and		
	Charleston, WV 25301	contract bid documents		
		for closure/capping of 20-acre landfill.		
Big Sandy Peaker Plant	Constellation Power	Environmental	Unknown	100%
Wayne County, WV	Company	permitting, site		
	250 West Pratt Street,	survey and stakeout,		
	23rd Floor	geotechnical		
	Baltimore, MD 20201	exploration, and		
		foundation design.		
Environmental Site	Jackson & Kelly, PLLC	Field reconnaissance,	N/A	100\$
Assessment of Mine	1600 Laidley Tower	field measurements,		
Drainage from AML	Charleston, WV 25322	laboratory analysis,		
Sites, McDowell		and report summarizing		
County, WV		AMD.		
Construction Layout	WVDEP	Surveying and stakeout	\$3,500	3001
for Mahan Tipple and	Office of Abandoned	for construction		
Refuse AML Maintenance	Mine Lands Reclamation	contractor for AML		
Project, Fayette	Nitro, WV 25143	site.		
councy, wv				
Construction Layout for Lynn Brook (Bond)	WVDEP Office of Abandoned	Surveying and stakeout	\$2,000	3001
Drainage, AML	Mine Lands Reclamation	contractor for AML		
Reclamation Project,	Nitro, WV 25143	site.		
Kanawha County, WV				
TOTAL NUMBER OF PROJECTS:	3.5	TOTAL ESTIMA	TOTAL ESTIMATED CONSTRUCTION COSTS:	
16 (POTESTA has cc	16 (POTESTA has completed well over 1000 p	projects.)	V).	\$90,870,872

16. CURA . I ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A S .-CONSULTANT TO OTHERS

STRUCTION COST	YOUR FIRMS RESPONSIBILITY	\$750,000	\$20,000			
ESTIMATED CONSTRUCTION COST	ENTIRE PROJECT	\$60,000,000	\$750,000			
ESTIMATED COMPLETION DATE		2009	2008			
NAME AND ADDRESS OF OWNER		ZMM, Inc. 222 Lee Street, W. Charleston, WV 25302	Andropogon Associates, Ltd. 10 Shurs Lane Philadelphia, PA			
NATURE OF FIRMS RESPONSIBILITY		Design Water Supply and Sanitary Sewer Systems	Site Utilities, Stormwater Management and Agency Coordination			
PROJECT NAME, TYPE AND LOCATION		Bradshaw Schools Site Utilities	Charleston Greenspace Project			

17. CC LETED WORK WITHIN LAS	CC LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM.	AS THE DESIGNATED ENGINEER OF RECORD		
PROJECT NAME, TYPE AND LOCATION	-	ESTIMATED CONSTRUCTION	YEAR	CONSTRUCTED (YES OR NO)
Sundial Refuse Pile Project, Raleigh County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$3,900,000	2004	No
Georges Creek Rockslide Retaining Wall, Kanawha County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$430,000	2005	Yes
William Nursing Home Landslide Retaining Wall, Mingo County, WV	WVDEP, AML 601 57 <sup>th</sup> Street, SE Charleston, WV 25304	\$2,500,000	2005	Yes
Fisher Ridge Waterline Extension - Phase II, Putnam County, WV	Putnam County Commission 3389 Winfield Road Winfield, WV 25213	\$400,000	2004	Yes
Stephens Auto/Betsy Lane Waterline Extension, Boone County, WV	Boone County PSD PO Box 287 Danville, WV 25053	\$250,000	2005	Yes
Trace Branch at Robinson Waterline Extension, Boone County, WV		\$250,000	2006	Yes
	Boone County PSD PO Box 287 Danville, WV 25053	\$600,000	2006	NO
r⊶, -r-, ş	Boone County PSD PO Box 287 Danville, WV 25053	\$750,000	2006	Yes
Cabell County Waterline Extension, Cabell County, WV	West Virginia American Water PO Box 1906 Charleston, WV 25327	\$3,000,000	2002	Yes

17. CC 'ETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR  LOCATION OF OWNER	T 5 YEARS ON WHICH YOUR FIRM AS NAME AND ADDRESS OF OWNER	S THE DESIGNATED ENGINEER OF RECORD ESTIMATED CONSTRUCTION COST	YEAR	COL. TRUCTED
City of Philippi Relocation of Waterline, Philippi, WV	City of Philippi PO Box 460 Philippi, WV 26416	\$1,000,000	2004	
Tucker County Industrial Park, Tucker County, WV	Tucker County Development Authority 215 First Street Parsons, WV 26287	\$1,100,000	2003	Yes
Mifflin-Sharples Waterline Extension, Logan County, WV	West Virginia American Water PO Box 1906 Charleston, WV 25327	\$600,000	2006	Yes
Mountain Laurel Potable Water Supply Extension, Logan County, WV	Mingo-Logan Coal Company PO Box E Sharples, WV 25183	\$450,000	2006	Yes
Kanawha Eagle Coal Refuse Disposal Impoundment, Ongoing, Kanawha County, WV	Kanawha Eagle Limited Liability Company PO Box 100 Winifrede, WV 25314	\$1,500,000	2003	Yes
Hampton-Clarke IQAT Closure Design Evaluation, Fairmont, WV	Hampton-Clarke, Inc. 175 Route 46 West Fairfield, NJ 07004	\$1,500,000	2003	Yes

18. C. LETED WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIR. LAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICAT, HASE OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)

OF WORK FOR WHI	OF WORK FOR WHICH YOUR FIRM WAS RESPONSIBLE)				
PROJECT NAME, TYPE AND LOCATION	NAME AND ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH
Sulphur Springs Bridge Replacement Over Opequon Creek,	a L	Unknown	2003	Yes	W.R. Ramsey & Associates
Jefferson/Berkley County, WV	Charleston, WV 25305				
CLI (1) \	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2002	Yes	W.R. Ramsey & Associates
\ 1l	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2003	Yes	Modjeski and Masters, Inc.
Martha Truss Bridge Replacement, Cabell County, WV	West Virginia Division of Highways Capitol Complex, Bldg 5 Charleston, WV 25305	Unknown	2003	Yes	Modjeski and Masters, Inc.
Blackwell Field Redevelopment, Charleston, WV	₩ -	\$1.00,000	2005	Yes	BBL Carlton
Benedum Residence Hall Replacement, Charleston, WV	0) -	\$2,200,000	2004	Yes	BBL Carlton
don Bridg		Unknown	2004	No	Modjeski and Masters, Inc.
UC Pharmacy School, Charleston, WV	University of Charleston 2013 MacCorkle Ave. SE Charleston, WV 25304	\$6,000,000 Our Fee \$55,000	2006	Yes	Pray Construction Company

firm's description of resources supporting your .ndoned Mine Lands Program. his space to provide any additional information fications to perform work for the West Virginia. Ωŝ 19

Potesta & Associates, Inc.'s (POTESTA) "Expression of Interest for Professional Engineering Design Services and Construction Monitoring Services for the Maybeury (Oakley) Landslide Project" supports this questionnaire in providing POTESTA's qualifications and resources for serving the West Virginia Department of Environmental In summary, POTESTA: Protection, Office of Abandoned Mine Lands and Reclamation on this project.

- Has assembled a team of in-house personnel and subcontractors who have historically worked on AML projects. POTESTA in-house staff includes 12 Professional Engineers including 10 in the primary office, three of whom has each worked on over 60 AML projects. . --|
- Has a large local staff with a unique multidiscipline technical emphasis (including civil engineering, structural engineering, geological engineering, hydrological engineering, mine land reclamation, with a strong emphasis on water quality and aquatic life and toxicity). Two members of POTESTA's staff have their Ph.D.'s, and 12 have their Masters Degree. N
- POTESTA employees have worked on and have experience Has 10+ employees with experience on WVDEP AML projects. in the following type of WVDEP AML projects: ٠ س
- Water Supply Feasibility Studies and Design
- Passive Acid Mine Drainage Treatment Reclamation of Refuse Piles Assessment of Contamination (e.g., PCB's, asbestos)
  - Demolition of Structures
    - Diversion Structures

Subsidence Assessment and Remediation

Wetland Assessments

USCOE Permitting

Sealing Mine Portals

Stream Relocations

- Identifying Acid Mine Drainage Inventory of Residential Water Supplies
  - Landslides
- since POTESTA has two Professional Engineer Can handle a substantial AML workload (more than our competitors) (P.E.) Project Managers each with experience on 60+ AML projects. 4.
- with offices to WVDEP's Charleston office, Office is located in Charleston, West Virginia in close proximity in Morgantown, West Virginia and Winchester, Virginia. IJ,
- Staff has had a positive relationship with WVDEP, AML in the past, which we would like to continue. 9

20. The forego	20. The foregoing is a statement of facts. $\mathcal{L}$				
Signature:	Dana 7. Deens	Title:	Title: Vice President	Date:	Date: October 29
Printed Name:	Dana L. Burns				

2008

# Civil Engineering and Design

Potesta & Associates, Inc. (POTESTA) helps clients evaluate and plan projects by completing the following types of preliminary investigations and analyses.

- Phase I environmental site assessments
- Floodplain determination
- Geotechnical explorations including soil, bedrock, and groundwater characterization
- Foundation recommendations
- Monitoring well systems and site characterization plans
- Boundary, topographical and photogrammetric surveys
- Utility planning
- Earthwork evaluations including volume analysis
- Opinion of probable costs/engineer's construction cost estimates

Once the project has been determined feasible, POTESTA's design professionals complete preliminary and final designs. Frequent communication is made with the client and any other design professionals to review completed activities and obtain input for the design process. Our goal is to provide our services to achieve or exceed our clients' expectations.

#### Our design services include:

- Erosion and sediment control plans
- Earth retaining structures design
- Geometric site layout
- Grading and drainage plans, including excavation and fill optimization
- Access road design
- Hydraulic structure design
- · Water and sewer design
- Slope stability analysis
- Subsurface drainage system design
- Construction drawings, specifications and contract document preparation

POTESTA offers experienced environmental engineers and scientists to prepare applications for various environmental permits that may be required. These services include:

- Stormwater management permit/erosion and sediment control plans
- Office of Air Quality Permit to Construct
- Wetland delineation and permits
- National Pollutant Discharge Elimination System (NPDES) permits
- Floodplain management permits
- Groundwater protection plans
- Spill prevention control and countermeasure plans
- Environmental site assessments
- Environmental impact statements

POTESTA routinely provides professional services throughout construction of our projects. These services include survey layout, construction management, construction monitoring, record drawing preparation, and bid evaluation assistance.





# Computer Aided Drafting and Design

The Potesta & Associates, Inc. (POTESTA) computer-aided drafting and design (CADD) department provides state-of-the-art design and drafting services for in-house engineering and environmental consulting projects. We also provide personnel to clients who have a temporary need for additional drafting manpower. These services may be performed at your location or our office as required.

The CADD department utilizes the latest drafting/design software and computer hardware to maintain productivity at the high levels that clients demand and expect. We utilize AutoCAD, AutoCAD Land Development Desktop 3 civil/survey design software, and Microstation to prepare, revise, and manipulate drawings and engineering data efficiently. Drawings and figures are produced using a Hewlett Packard 1050c Plus color ink jet plotter. POTESTA's experienced and trained professionals allow clients' projects and assignments to be completed rapidly and at reasonable cost.

#### Our CADD services include:

 Survey data manipulation including development of topographic mapping, cross sections, profiles, isopach drawings, etc.

- Site design including grading plans, drainage plans, utilities plans, right-of-way plans, etc.
- Roadway design
- Water and sewer design
- Permit drawings, maps, and exhibits
- Earthwork and planimetric quantity development
- Two and three dimensional graphics



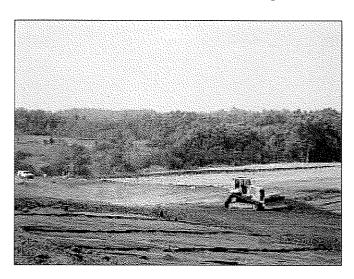
# Construction Monitoring

Potesta & Associates, Inc. (POTESTA) provides construction monitoring and construction management services to assist clients in achieving regulatory and contractual compliance; to document that contractor activities are in compliance with design requirements; and to serve as an extension of clients' staff. POTESTA can provide full-time or part-time field services utilizing one or more engineers or technicians.

Regulatory compliance is often best documented by providing full-time construction monitoring services for a construction project. POTESTA can assist clients in observation of construction activities and documenting compliance. Our typical involvement in such projects includes:

- Conducting a pre-construction review of design and contract documents to identify potential problem areas, and consultation with the owner or client to develop strategies or procedures to avoid anticipated problems.
- Assistance in contractor selection. POTESTA can recommend construction contractors who specialize in the type of work associated with the project and can assist in bid evaluation by reviewing proposed quantities, unit costs, lump sum costs, and any proposed exceptions or qualifiers for the project. POTESTA can conduct pre-bid conferences to help contractors understand project requirements. We can also conduct pre-construction conferences prior to the start of the project to help establish lines of communication, review detailed plans, discuss testing requirements and establish proper reporting procedures.

POTESTA can provide surveying for construction layout, measurement for payment quantities, and documentation of as-built conditions. Survey results are downloaded to form computer-aided drafting (CAD) drawings allowing the efficient preparation of record drawings and any subsequent evaluations required.



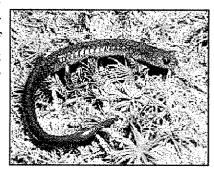
- Construction monitoring can include field testing to document compliance such as field density tests, concrete testing, sampling of materials for laboratory analysis, and documentation of site conditions and work performed on a daily basis or as required.
- Preparation of summary of construction reports including photographs, videotape documentation, test results, daily construction logs, industrial hygiene monitoring, and other documentation as may be required by the client.
- Preparation of certifications as may be required.



# Endangered Species Consultation

The Endangered Species Act (ESA) requirements can delay if not halt important projects. Being able to respond promptly and thoroughly to the Fish and Wild-

life Service's (Service) requests for an evaluation of probable project impacts on either endangered species, threatened species, or species of concern can facilitate needed regulatory approvals.



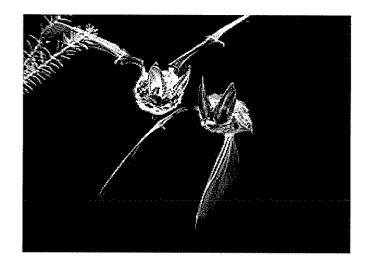
Potesta & Associates, Inc. (POTESTA) has extensive experience in biological assessments (BA) related to the ESA. We utilize a combination of inhouse professionals and recognized experts to complete projects for our clients. This arrangement allows us to provide a work product which is acceptable to the Service.

For the last several years, our office has worked with natural gas transmission companies preparing environmental reports which include assessments and remediation of impacts to rare, threatened, and endangered species. POTESTA's biologists have worked on natural gas projects within the core summer roosting and maternity range of the Indiana bat. This work provided the firm's biologists with considerable experience in identifying suitable Indiana bat habitat in Ohio, Kentucky, Virginia, and West Virginia. Other biologists within our office also have experience in bat surveys, echo location, bat identification and mussel surveys.

We have established professional relationships with local and regional experts on projects in our region. These relationships allow us to have access to recognized experts on the appropriate species on an as-needed basis. The advantage to the client is that this approach allows us to select the best individual for the task at hand.

These experts have specialized in the study of their species of interest for many years and are familiar with the life cycle, habitat requirements and sampling techniques for the species. POTESTA supplements these individuals with our experienced field staff, who are intimately familiar with the project, to constitute an effective team to respond quickly to threatened and endangered species issues. POTESTA provides final reports with additional information obtained from the noted expert, as well as relevant mapping and other supporting information.

This team approach allows for a complete evaluation of the potential impact a project may have on a species of concern. The most basic level of services in this area is a partial evaluation based only on literature reviews. An intermediate level of effort would be the literature review and a thorough field review of the project site to evaluate habitat. A complete evaluation would include the literature review, habitat evaluation, and extensive field collection program during the appropriate season of the year. Our subcontractors have the appropriate permits to collect the species in question.



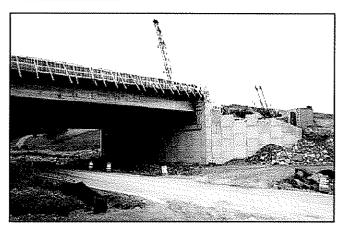


# Geotechnical Engineering

Potesta & Associates, Inc.'s (POTESTA) engineers and geologists have extensive experience related to the geotechnical engineering and geological disciplines. These areas include subsurface investigations, monitoring well and piezometer installations, foundation design recommendations, slope stability analysis, and remedial designs as they relate to construction, mining, waste disposal, environmental remediation, and other projects.

#### SUBSURFACE INVESTIGATIONS

POTESTA's diverse staff of engineers and geologists is experienced in the many different facets of subsurface investigations. Our usual procedure is to attend an initial meeting with the client to establish requirements and expectations, conduct a preliminary site reconnaissance, and develop a recommended exploration program for your review and approval. Supplemental information from the local area is then obtained from readily available sources to assist the engineer or geologist in making final recommendations.



POTESTA can provide field engineers and geologists who are knowledgeable using the latest

technologies to assist in collecting and analyzing samples. Our knowledge of the proper procedures and familiarity with local conditions allows office and field personnel to adjust the investigative plan if unanticipated field conditions are found.

Our staff is familiar with the following items which can be associated with subsurface exploration:

- Drilling and Rock Coring Techniques (augers, rotary bits, Geoprobe<sup>™</sup>, etc.)
- Sample Collection Methods (split spoons, shelby tubes, Geoprobe<sup>™</sup> sleeves, etc.)
- Classification and Logging of Soil and Rock Samples
- Monitoring Well and Piezometer Installation

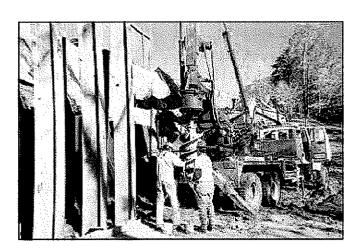
#### SLOPE STABILITY ANALYSIS AND REMEDIAL DESIGN

Slope stability is often a major concern during the design and construction phases of many projects. especially those located in the Appalachian terrain. POTESTA's engineers are familiar with the various methods utilized to predict slope stability and are capable of performing the related analyses. Slope stability is critical for many projects such as analysis of existing or proposed soil embankments, rock fills, dam analysis and design, landfill design and operation, estimating the causation of slope failure, and designing remedial measures. Analyses can involve circular or sliding block methods, interface friction angles, and estimation of the strength parameters of the soil or rock. Slope stability analyses are performed on one of the most technologically advanced computer programs available and can be modified using site specific data.

(see next page)



POTESTA's engineers can also develop preventive measures during initial project design or recommendations to repair slope failures. Based upon the project circumstances, our engineers will consider various remedial measures such as regrading the site to obtain more suitable conditions, management of groundwater, and design of retaining structures. Our staff is familiar with a wide variety of retaining structures, including gabion baskets, soldier beam and lagging walls, sheet piles, reinforced concrete and reinforced earth slopes.



#### FOUNDATION DESIGN RECOMMENDATIONS

POTESTA's staff has experience with various types of foundations and will recommend the appropriate type of foundation given the anticipated application and site conditions. The different types of foundations with which our staff is familiar are spread and strip footings, steel piles, auger-cast concrete piles, drilled piers, and reinforced mats.

Preliminary foundation design recommendations and cost analyses are commonly performed during the initial phases of a project to assist in determining project feasibility. As project planning progresses, the preliminary alternatives will be revised into a final recommendation which can then be incorporated into the project's construction documents or develop as an independent package for presentation to the contractor.

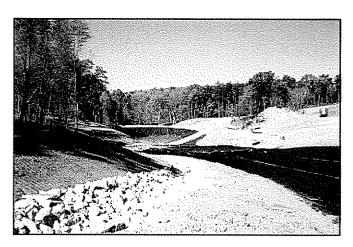
The final recommendation can include construction drawings, technical specifications, recommendations for allowable bearing capacity, engineer's construction cost estimate, and contractor's bid sheet.

# Hydrology and Hydraulics Design

Our engineers have extensive experience in the application of hydrology and hydraulic principles to the design of real world systems. These applications include:

- Drainage structure sizing
  - Stream relocations
  - Culverts
  - Channels
- Pond and dam design
  - Sediment ponds and basins
  - Spillways
  - Design/rehabilitation
  - Slurry impoundments
  - Lagoons
  - Dams
- Detention and detention systems
  - Ponds
  - Pipes
  - Underground bladders
- Floodplain Management Permits/Approval
- Floodway studies
  - FEMA (Federal Emergency Management Agency)
  - NFIP (National Flood Insurance Program)
  - Flood elevation surveys/certifications
  - Flood routing
- Dam break analysis
- Hydrology surveys
- Stream gauging
- · Rainfall and flow data collection
- · Stormwater drainage system design
- Pressure pipe systems
- Stream restoration plans
- · Natural Stream Channel Design/Restoration
- Expert witness testimony

To complete these types of applications, our engineers, scientists, and surveyors work jointly to develop an effective and economical solution to your situation. Their analyses use widely accepted computer models.



Potesta & Associates, Inc. typically uses the following computer modeling programs:

- HEC RAS
- HEC HMS
- TR-20/TR-55
- StormCAD
- Culvert Master
- Flow MasterPond-Pac
- CORMIX

We have provided these services to a wide variety of public and private sector clients. Our staff not only understands the technical details, but is very experienced in working with the various state, federal, and local regulatory agencies. We know the level of detail they require and can obtain the necessary approvals in a timely manner.



# Permitting Services

Potesta & Associates, Inc. (POTESTA) offers its clients exceptional expertise and experience when it comes to the permitting process, including all phases of application preparation, negotiations, modifications, compliance and renewal at all levels of government. Our permit services cover air, mining, water and waste disposal permits.

#### **AIR**

Our firm offers complete air permitting and consulting services to assist industry in complying with today's complex air quality regulations. Our staff has experience in identifying, characterizing and permitting air pollution sources for a variety of industries, including:

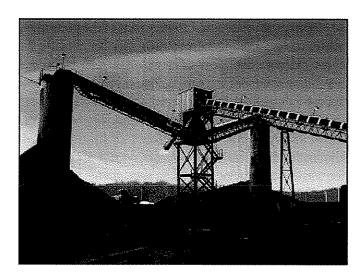
- Coating operations
- Petroleum and petrochemical operations
- · Chemical manufacturing
- Manufacturing facilities
- Mining
- Ouarries
- Natural gas compressor stations
- Electric utilities

Our air quality experts have comprehensive knowledge of federal, state and local regulations, as well as experience in complex Title V applications. Our services include identification of potential air pollution sources, development of control strategies, preparation of permit applications, emissions inventories, compliance audits and regulatory liaison.

At both the state and federal levels, we help clients interpret and comply with air regulations, including the New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAPS). We can suggest emissions control strategies to meet both current and anticipated regulations, including BACT, MACT and LAER.

#### **MINING**

In recent years, mining permits have become increasingly complex, requiring diverse expertise in mining techniques, engineering, environmental regulations, benthic studies, hydrogeology and hydrology. Our staff has broad experience in providing innovative solutions to various mining problems.



Although the objective of a permit application is to receive agency approval in a timely manner, the client does not benefit if the application does not allow for effective operations. We work with our clients to ensure that your operational needs are met while allowing for essential flexibility. Several members of our staff have mining industry experience, and they understand the requirements vital to an effective operation.

From the beginning of the permit process, POTESTA involves the reviewing agency to allow its concerns to be addressed prior to submittal of the application. Often, this reduces the need for review comments and revisions which could slow the approval process. Our thorough knowledge of the various phases and requirements of the permitting

(see next page)



process, coupled with our technical expertise, may facilitate the approval of permits that are operation based and thus more acceptable to you.

Our staff members have the knowledge and expertise to develop modification submittals that are timely and cost effective. We can also expedite permit renewal applications with minimal input from our busy clients.

#### WATER

The Clean Water Act regulates the discharge of pollutants into surface water through the National Pollutant Discharge Elimination System (NPDES). Potesta & Associates has extensive experience in water permitting projects, including industrial and municipal wastewater and storm water discharges.

Perhaps the most important aspect of the permitting process is determining the approach most beneficial to the client. Our personnel are familiar with both state and federal permitting strategies and can provide capable guidance for appropriate and applicable permits for a project.

Our staff specializes in reviewing facility wastewater flows and recommending methods of minimizing or eliminating these discharges. Our knowledge of alternatives for wastewater management can save clients money and potential liability.

We can help the client decide which type of permit coverage is required for a given project. Also, with our thorough understanding of state and federal wastewater permitting, we have been able to renegotiate numerous draft permits to achieve more acceptable requirements. POTESTA can prepare a draft NPDES permit for submission to the appropriate agency. This gives the client more input regarding the permit requirements. Our personnel are experienced in permit writing and will work closely with agency staff to insure that the permit meets both regulatory requirements and the needs of our clients.

#### WASTE

POTESTA is highly knowledgeable of the challenges faced in receiving a permit to allow proper disposal and/ or use of your waste products. Our staff has experience with municipal and industrial solid waste and construction demolition waste and hazardous waste. They have designed landfills, transfer stations, recycling facilities, closure plans and corrective action plans.

We have experience in:

- Bioremediation
- Resource recovery
- Sludge handling/stabilization
- Utilization of coal combustion by-products
- Construction monitoring/management

Our staff of civil, geotechnical, environmental and mining engineers, geologists, hydrogeologists, biologists and surveyors strives to obtain the maximum flexibility for your facility, whether it is a new operation, the modification of an existing facility, or a permit renewal. Regulatory liaison assistance is a key component in our efforts.



# Site Design



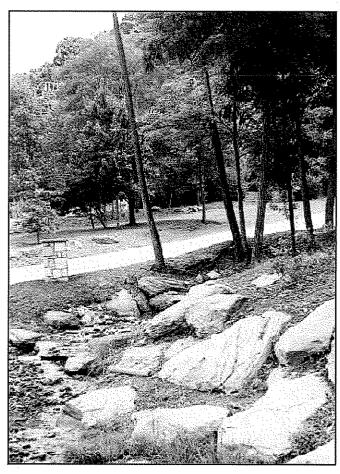
Potesta & Associates, Inc. has a significant body of work in site design for residential, commercial and industrial clients. Projects range from power plant siting to subdivision design. We have assisted numerous developers and development agencies with the creation of business industrial parks throughout West Virginia, and have been part of design teams for elementary, secondary and collegiate projects primarily associated with new building construction.

Our staff of civil, environmental, and geotechnical engineers; surveyors and environmental scientists can provide the following site planning and design services.

- Surveying topo and boundary
- Base mapping from aerial photography
- Geotechnical engineering
- Land planning
- · Environmental issues evaluation and mitigation
- Site grading
- Vehicular and pedestrian circulation
- Utility design
- Site features
- Stormwater management plans

Some clients who have used our site design services include:

- West Virginia Development Office
- Development Authorities: Tucker, Wood and Roane Counties
- Bright Enterprises
- BIDCO (Capital Area Development Corporation)
- University of Charleston
- Timberwolf Development Corporation
- West Virginia Department of Environmental Protection
- West Virginia Division of Natural Resources
- Marshall University
- Architects: Associated Architects, Bastian & Harris, Architects, SEM Partners





# Surveying and Mapping

Our surveyors are experienced in many aspects of surveying such as topographic mapping, boundary surveys (rural/farms, city lots, and subdivisions) and ALTA surveys, control surveys, flood certificate surveys, well location surveys, and construction surveys for layout of work, record drawings, and quantity measurements. Related areas include courthouse research, preparation of right-of-way plans, and verification of property owners. Potesta & Associates, Inc. (POTESTA) has licensed professional surveyors registered in West Virginia, North Carolina, South Carolina, Ohio, Virginia, and Pennsylvania. Their total combined surveying experience comes to well over 50 years.

POTESTA's surveyors use state-of-the-art equipment such as Topcon total stations, Trimble R-8 GNSS, and SMI Version 8 data collectors with SMI software. Reduction and design software used includes AutoCAD, Softdesk Civil/Survey design, Autodesk Land Design, Microstation, and InRoads design software.

POTESTA is equipped with modern surveying instruments, allowing efficient data processing and accurate gathering of field information. Total station instruments equipped with data collectors are utilized for complete field-to-office automation allowing for high levels of productivity in the field. The latest versions of software are then used to process survey data and create drawings or required end products. These products can be supplied to our clients in AutoCAD and/or Microstation format.

Small topographic mapping projects can be completed in-house using the aforementioned process. Larger projects are better suited for mapping using aerial photography.

POTESTA can provide the necessary surveying required for establishing ground control for aerial mapping. As a quality control measure, aerial mapping is field checked for accuracy by surveying cross sections or random points.

Surveys completed by POTESTA are performed by or under the direction of a professional licensed surveyor. Surveys and mapping are completed to the standards outlined by the National Map Standards as well as other



applicable quality standards.

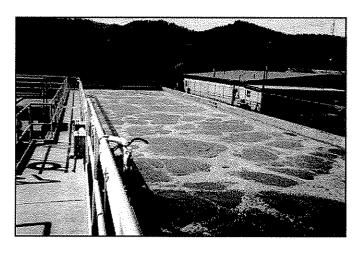
Our staff is experienced in global positioning surveys (GPS). GPS equipment, Trimble R-8 GNSS, and existing base stations are among POTESTA's surveying tools. Based upon the site location and ultimate use of the survey information, a recommendation is made to the client as to whether or not traditional survey or GPS is most applicable to their project.

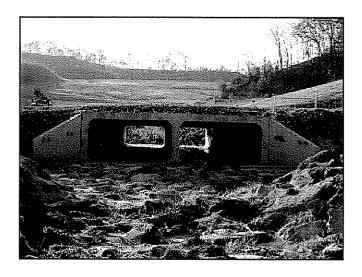
# · Water and Wastewater Engineering

Our professional staff is dedicated to providing quality engineering services for various types of water treatment and distribution systems, as well as wastewater management, collection and treatment systems. The following is a list of some of the services Potesta & Associates, Inc. is capable of providing:

#### WATER AND WASTEWATER DESIGN

- Feasibility studies
- · Conceptual design
- Final design
- · Bidding and construction
- Construction monitoring
- Wastewater audits
- Wastewater minimization studies
- Engineer's cost estimates
- Small flows design (traditional and innovative treatment systems for low volume flows)
- · Sewage collection and treatment
- Water treatment and distribution
- Industrial wastewater treatment
- Remediation systems
- Landfill leachate treatment
- Storage tank design
- Flow measurement
- Surveying/GPS and mapping
- Permitting and regulatory liaison
- Combined sewer overflow (CSO)
   Management, sampling and modeling





#### STORMWATER MANAGEMENT

- Hydraulic conveyance structure design (culverts, channels, drop inlets, etc.)
- Stormwater retention/detention pond design
- Stormwater pond modeling
- Floodplain identification and management strategies
- Hydrologic and hydraulic analysis and evaluations and modeling
- Construction monitoring
- Surveying
- · Permitting and regulatory liaison



Wetlands play a significant role in business and industry. These unique aquatic habitats can present problems with regard to development of properties because they are protected by the Clean Water Act.

Potesta & Associates, Inc. (POTESTA) has a qualified staff of scientists and engineers who are trained and experienced in the identification and permitting of wetlands, the mitigation of displaced wetlands and the design of constructed wetlands.

#### INVESTIGATION AND DELINEATION

Wetland investigations and delineations are conducted by POTESTA's scientists as part of pre-development site investigation and environmental impact assessments. During a wetland investigation, the site is examined for the presence of wetland indicators, including specific hydrology, soils and vegetation. Any wetlands discovered are delineated in accordance with the U.S. Army Corps of Engineers Wetlands Delineation Manual (1987).

#### PERMITTING

Once wetlands have been identified and delineated, POTESTA can prepare application packages for permits to fill and/or dredge these areas for further development. The U. S. Army Corps of Engineers (COE) is the agency responsible for granting wetland permits under Section 404 of the Clean Water Act. In addition to the COE permit, individual states must approve each permit granted, certifying that it meets the state's water quality standards.

Our employees have established working relationships with both the federal and state agencies in this region. We are very familiar with the data required and can work with the agencies to obtain timely review and issuance of permits.



#### MITIGATION AND DESIGN

Wetland mitigation and design come into play when wetlands being displaced or filled are large enough to require mitigation under state and federal standards. In some cases, wetland mitigation can be achieved solely through the payment of a fee to a mitigation bank or fund, established for the creation, protection or enhancement of other wetland areas. In this case, POTESTA can prepare an appropriate mitigation offer and negotiate with state and federal authorities for its approval.

Depending upon the availability of suitable sites, wetland mitigation can also consist of the actual design and construction of new wetlands, or the enhancement of existing wetlands. Our staff includes qualified engineers experienced in the design of created wetlands. Working as a team with staff biologists, we can produce a cost-effective functional design for presentation to state and federal authorities. Once approved, we can provide monitoring of the construction of the new wetlands.



# POTABLE WATER SUPPLY FOR MOUNTAIN LAUREL COMPLEX

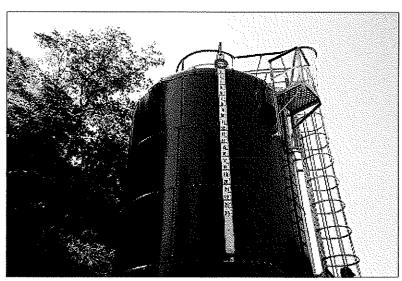
# Mingo-Logan Coal Company

#### Logan County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for the potable water supply for a new deep mine complex in Logan County, West Virginia. The design concept involved extending water line from a nearby public water system to serve the proposed mine office, coal preparation plant, and bathhouse. Approximately 9,000 linear feet of 10-inch, 8-inch, 6-inch and 4-inch High Density Polyethylene (HDPE) water line were designed, as well as a water storage tank, booster station and blow-off assemblies. Services included:



- 1. Completing a hydraulic evaluation of the extension to size proposed water line, including developing estimated flow for the facilities.
- 2. Preparing drawings and specifications.
- 3. Preparing a permit application to the West Virginia Department of Health and Human Resources.
- 4. Providing bidding phase services, construction management services, and full-time construction observation.



#### POTESTA & ASSOCIATES, INC.

# PERMITTING FOR LOWER WHITE OAK DRIVE WATER LINE EXTENSION

## West Virginia-American Water Company

#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water (WVAW) to prepare permit applications for the Lower White Oak Drive water line extension in Boone County, West Virginia. The water line extension was to be constructed by the Boone County Public Service District (BCPSD), with WVAW providing operation and maintenance. The water line extension consisted of approximately 2,400 feet of 6-inch and 2-inch water line to serve eight new customers. Three crossings of White Oak Branch were included in the project.

POTESTA prepared the following permit applications:

- 1) For the three stream crossings:
  - United States Army Corps of Engineers, West Virginia Public Land Corporation (WVPLC), and West Virginia Department of Environmental Protection 401 water quality certification.
- 2) For installation with the right-of-way of a highway:
  - West Virginia Division of Highways (WVDOH) Highway Occupancy permit application.

POTESTA prepared the permit applications on short notice to expedite the start of construction. Construction commenced shortly after permits were received, and the water line installation was completed shortly thereafter.

# BOONE COUNTY WATER SUPPLY PROJECTS West Virginia-American Water Company

#### Boone County, West Virginia

POTESTA was selected by West Virginia-American Water Company (WVAWC) to provide engineering, construction-related and other services for multiple water line extensions. In addition, the firm assisted with the liaison between the Boone County Public Service District and WVAWC for the development of proposed county-wide water line extensions.

Specifically, POTESTA completed the following general tasks:

- Preparation/maintenance of inventory POTESTA prepared an inventory consisting of county-wide mapping showing existing served areas and unserved areas and proposed water line extensions. Approximately 59 proposed water line extensions were inventoried. The inventory assisted utility officials in identifying and prioritizing extensions.
- ♦ Preparation of water line extension layout and quantities POTESTA prepared mapping to layout proposed water line extensions for the following:

Jack Cradock Road	Betsy Lane
Steven's Auto	Stollings Road
Hopkins Road	Frontage Road
White House Branch	Laural Branch
Mifflin	Tic Toc Tire
Joe's Creek	Dunlap Road
Sylvester to Whitesville	~
	Steven's Auto Hopkins Road White House Branch Mifflin Joe's Creek

The layouts included road, stream, and railroad crossing locations, approximate hydrant and booster station locations, tie-in locations, and proposed water line sizes and materials. From this, construction quantities for each extension were developed. Preliminary engineering reports and construction cost estimates were prepared as part of the West Virginia Infrastructure and Jobs Development Council applications for various extensions.

Construction Observation - POTESTA provided construction observation for the following extensions:

Peytona Estates at Racine	Ellis Branch at Six Mile	Bias Lane at Hager's Market
Dunlap Road at Greenview	Middle Horse Creek Road	Upper Hewitt Creek
Little Horse Creek Road	Hewitt Creek	Herman Dolin Road
Julian Detention Center Ridgevi	iew Tank Site Burton	Street
Holley Hills Subdivision	Meadow Fork	Midway at Peytona
Workman's Branch at Madison	Tan Through Hollow-Bias	Bull Run-Jackie Baire
Workman's Hollow-Vance Hollo	ow	

As part of this task, POTESTA developed record drawings showing the extensions.

#### POTESTA & ASSOCIATES, INC.

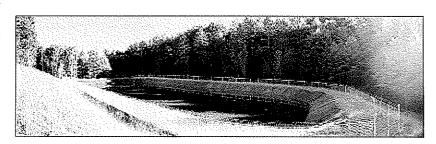
# BOY SCOUT CAMP WATER AND SEWER SYSTEMS AT DILLEY'S MILL

# **Buckskin Council - Boy Scouts of America**

#### Dilley's Mill, Pocahontas County, West Virginia

Potesta & Associates, Inc. (POTESTA) worked with the Buckskin Council of the Boy Scouts of America (BSA), the West Virginia Department of Environmental Protection (WVDEP) and the West Virginia

Department of Health and Human Resources (WVDHHR) to correct problems with the existing drinking water and sanitary sewer systems at the Buckskin Reservation at Dilley's Mill, Pocahontas County, West Virginia.



#### After problems were discovered

at the camp, the BSA asked POTESTA to review the sanitary sewer system and make recommendations regarding the upgrade and replacement of the existing lines. POTESTA was also asked to evaluate the existing sewage lagoon to determine if the facility was of adequate size. A site review of well locations, tank site, sewage treatment lagoon and alignment and location of both water and sewer lines was completed, and a report on problems identified and recommendations for correction was submitted to the BSA.

POTESTA provided administration and oversight of closure and abandonment of two of the camp's drinking water wells and the drilling of a replacement potable water well. Evaluation, recommendations and a master plan for replacement of the existing sanitary sewer system were provided by POTESTA engineers. The camp's sewage treatment lagoon was evaluated and recommendations were made for completely rehabilitating the lagoon to meet current regulatory standards.

POTESTA provided regulatory liaison and assistance with the forms required for well closure and abandonment, installation of a replacement well and replacement of the existing sewer system. Bid packages were developed for the required work and POTESTA worked closely with the BSA to issue and administer the contract with the successful bidder. After evaluation, the sewage lagoon was found to need replacement, and POTESTA worked with the BSA to provide design and construction of the replacement facility.

#### POTESTA & ASSOCIATES, INC.

# BUFF'S BRANCH/TRACE FORK WATERLINE EXTENSION

## West Virginia-American Water Company

Putnam County, West Virginia



Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water Company (WVAWC) to prepare a design and develop bidding/construction documents for approximately 35,000 linear feet of 8-inch, 12-inch, and 16-inch diameter waterline following United States Route 34, and County Routes 34/21 and 48 in Putnam County, West Virginia. POTESTA utilized USGS topographic mapping enlarged to create base mapping for the project.

POTESTA performed field reconnaissance and coordination with public and private utilities to establish locations of underground utilities. Road drainage culverts were also added to the plan drawings.

Based on topography, existing utilities, and required service connection locations, POTESTA selected the proposed waterline location and prepared plan view drawings. The plan drawings included the proposed line location, type, and size; valve locations; hydrant

locations; connection details; meter settings; road crossings; and stream crossings.

POTESTA developed bid quantities and an engineer's cost estimate and developed a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications to the West Virginia Department of Health, West Virginia Division of Highways, and West Virginia Division of Natural Resources Public Lands Corporation.

#### POTESTA & ASSOCIATES, INC.

# CABELL COUNTY WATER LINE EXTENSIONS West Virginia-American Water Company

Cabell County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to design and prepare construction/bid documents for approximately 23 miles of 2 through 8-inch diameter waterline in Cabell County. WVAWC provided POTESTA with a

conceptual plan of proposed waterlines and aerial photography contact prints. POTESTA scanned contract prints to develop 24 inch x 36 inch drawings at an approximate scale of 1 inch = 100 feet. Over 40 plan view drawings were created.

POTESTA performed field reconnaissance and coordination with public and private utility companies to establish locations of underground utilities. Roadway drainage culverts were also added to the plan view drawings.



Based on the topography, existing utilities and service connection locations, POTESTA selected the proposed waterline location and added it to the plan view. POTESTA then completed hydraulic analysis using a computer flow model to design line sizes and evaluate pressures and fire flow. POTESTA prepared a calculation brief for submittal to the West Virginia Department of Health.

POTESTA finalized the design drawings showing proposed line location, type and size; valve locations; hydrant locations; connection details; meter settings; road crossings; stream crossings; and approximate property boundaries.

POTESTA developed bid quantities and an engineer's cost estimate and created a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications for submittal to West Virginia Department of Health, West Virginia Division of Highways, West Virginia Division of Natural Resources, Public Land Corporation, and CSX Railroad.

POTESTA provided construction management, administration, and monitoring during the construction phase of the project.

#### POTESTA & ASSOCIATES, INC.

# ENGINEERING SERVICES FOR WEST VIRGINIA PUBLIC SERVICE COMMISSION CASE AND TEMPORARY BOOSTER STATION Town of Ceredo

#### Wayne County, West Virginia

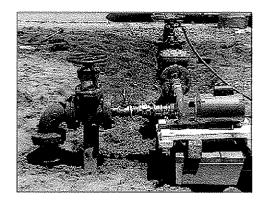
Potesta & Associates, Inc.(POTESTA) was retained by the Town of Ceredo to provide engineering services relative to a complaint case against the City of Kenova.

The City of Kenova sells water to the Town of Ceredo. After an upgrade to the City of Kenova's water system, the supply to the Town of Ceredo diminished, resulting in the Town of Ceredo utilizing a backup water source, "boil water" advisories being issued, and the Town of Ceredo filing a complaint against the City of Kenova with the West Virginia Public Service Commission (WVPSC). The Town of Ceredo retained POTESTA to provide engineering services to help address these issues.

As part of the services provided, POTESTA:

- 1. Evaluated the water supply from the City of Kenova, and provided recommendations on how to alleviate the problem.
- 2. Designed and prepared drawings and a West Virginia Department of Health and Human Resources application to allow installation of a temporary booster station to supplement the water supply from the City of Kenova.





#### POTESTA & ASSOCIATES, INC.

# FAIRVIEW OAKS SUBDIVISION WATER LINE EXTENSION

## Fairview Oaks, LLC

#### Morgan County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for extension of water service to a proposed subdivision just north of Berkeley Springs, West Virginia. POTESTA's services included:

- 1. Meeting with the Berkeley Springs Water Works (BSWW) to obtain information on the existing water system, identifying a path for the water line extension, and obtaining BSWW requirements for the water line extension;
- 2. Preparing base mapping for the water line extension (from two separate sources), and performing a site reconnaissance to locate site features;
- 3. Coordinating fire hydrant flow tests of the existing water system with BSWW to obtain data for hydraulic evaluation;
- 4. Completing hydraulic evaluation of the proposed water line, including evaluation of fire flow capacities, utilizing the computer program WATERCAD;
- 5. Preparing construction drawings and technical specifications;



Path of Water Line Extension

6. Preparing permit applications to the West
Virginia Department of Health and Human Resources Office of Environmental Health
Services and West Virginia Division of Highways, and interacting with those agencies until
permits were issued.

Total extension length was approximately 4,200 feet.

#### POTESTA & ASSOCIATES, INC.

# FEASIBILITY STUDY AND PREPARATION OF FUNDING APPLICATION FOR WATER SYSTEM EXPANSION City of Philippi

#### Philippi, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the City of Philippi to perform a feasibility study and subsequent funding application for a project involving upgrades to their existing potable water distribution system.

The project included the following:

- Hydraulic analysis of a sector of the City currently being served by an old storage tank.
- Conceptual design of:
  - 402,000 gallon storage tank
  - 16,000 gallon storage tank
  - 600 gpm booster station
  - 300 gpm booster station
  - -1,800 feet of 8" pipe
  - -2,000 feet of 6" pipe
  - Pressure reducing station

POTESTA prepared a preliminary engineering report and compiled the information necessary for a funding application with the United States Department of Agriculture - Rural Utilities Service (USDA-RUS). Additional services will include final design of the project components, preparation of construction drawings and technical specifications, permit applications, and construction monitoring.

#### POTESTA & ASSOCIATES, INC.

# FISHER RIDGE WATER LINE EXTENSION PHASE II

# **Putnam County Commission/West Virginia-American Water Company**

#### Putnam County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Putnam County Commission and West Virginia-American Water Company (WVAWC) to provide professional services for the Fisher Ridge Water Line Extension, Phase II in Putnam County. POTESTA's services included:

- 1. Revised existing construction drawings to depict construction of 11,000 linear feet of 8-inch diameter water line along Fisher Ridge Road;
- 2. Prepared an environmental impact statement for the federally funded project that resulted in a finding of no significant impact (FONSI);
- 3. Identified and collated bidding documents for the project, as required by the funding agency;
- 4. Prepared a preliminary estimate of probable construction cost;
- 5. Prepared a West Virginia Infrastructure and Jobs Development Council application (WVIJDC) and associated preliminary engineering report (PER) for funding agency purposes;
- 6. Assisted with a pre-bid meeting;





- 7. Completed construction administration/observation services, including:
  - Attended meetings as needed
  - Assisted with review of change orders
  - Provided a nearly full-time representative to observe construction
  - Reviewed contractor invoices and made recommendations regarding payment
  - Prepared weekly reports summarizing construction activities
  - Provided record drawings showing "as-built" features

Construction proceeded smoothly and the water line was installed. Throughout the project, POTESTA interacted with WVAWC, the West Virginia Division of Highways and other entities with an interest in the project.

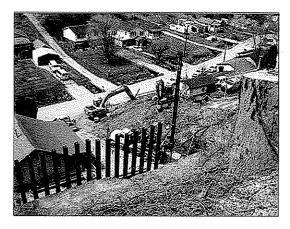
POTESTA & ASSOCIATES, INC.

# GEORGE'S CREEK (LUCAS) LANDSLIDE MAINTENANCE

# West Virginia Department of Environmental Protection-Office of Abandoned Mine Lands

#### Kanawha County, West Virginia

POTESTA was retained by the West Virginia Department of Environmental Protection - Office of Abandoned Mine Lands (WVDEP) to evaluate and perform geotechnical engineering services for a landslide related to historic mining activity which was threatening a nearby residential structure.



A portion of the existing hillside immediately adjacent to the rear of the residential structure was excavated prior to construction of the structure to a near vertical slope exposing weathered shale and a coal seam near the slope's base. The exposed coal seam was determined to be the No. 2 Gas seam which was reportedly mined in the 1950s. Some drainage was noted flowing from the coal seam and the resulting water was conveyed through a nearby culvert to Georges Creek. Attempts were made by WVDEP to excavate loose rock and soil from the hillside in an effort to improve stability of the slope. Following this initial work the slope continued to slough with periodic small slides and slope

movement believed to be caused by continued subsidence of the underground mine works.

POTESTA performed a subsurface exploration to assist in evaluating the landslide condition, including the type and condition of the rock located in the slope as well as the attitude, thickness and condition of the underlying coal seam. POTESTA survey crews also completed a topographic survey of the affected area including the surrounding residential structure, drains and wooded hillside. The remedial measures to correct the landslide area included the design of a 25-foot high steel soldier beam and concrete lagging retaining wall with sloped, compacted backfill constructed from on-site materials. The retaining wall design required the application of a rock anchor tie-back system due to mine voids existing at the base of the hillside slope that were encountered during the subsurface exploration

As part of the project, POTESTA assisted the WVDEP with contract administration and performed construction observation services during the construction phase.

#### POTESTA & ASSOCIATES, INC.

# MAHAN TIPPLE AND REFUSE AML MAINTENANCE PROJECT

## **Thaxton Construction Company**

Fayette County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Mahan Tipple and Refuse Maintenance AML Project in Fayette County, West Virginia. Thaxton Construction Company had been contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform maintenance on an AML refuse pile, originally reclaimed in the late 1980's, that had a significant failure near the toe of the refuse pile.

Proposed maintenance included excavation of material near the toe, installation of a rock buttress at the toe (approximately 1,000 cubic yards), installation of two grouted riprap channels totaling approximately 300 feet, and regrading and revegetation. Total proposed excavation was approximately 10,000 cubic yards. Construction documents for the project were prepared by another consultant.

#### POTESTA's tasks for the project included:

- 1. Construction layout of lines/grades for earthwork, including survey of "pre-construction" and "post-construction" cross sections.
- 2. Construction layout of proposed channels.
- 3. Computation of (or assistance with) certain as-built quantities, including earthwork, channels, and revegetation.
- 4. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

# MIFFLIN-SHARPLES WATER LINE EXTENSION West Virginia American Water

#### Logan County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to provide engineering services for extension of water lines in the Mifflin-Sharples areas of Logan County, West Virginia.

The design concept involved extending West Virginia American Water line from Boone County to the Logan County Public Service District's (LCPSD) Sharples system and providing service to approximately 25 new customers, and then extending water line south along State Route 17 to a new deep mine complex. Approximately 11,000 linear feet of 8-inch, 6-inch and 2-inch water line



were designed, as well as numerous connections to existing water line, upgrade of existing water line, and rehabilitation of LCPSD's water storage tank. Services included:

- 1. Completing a hydraulic evaluation of the extension to size proposed water line, including flow testing of the existing LCPSD system.
- 2. Preparing drawings, specifications, and a cost estimate.
- 3. Preparing permit applications to the West Virginia Department of Health and Human Resources, CSX Transportation (for a railroad crossing), West Virginia Division of Highways, U. S. Army Corps of Engineers and West Virginia Public Land Corporation, and interacting with those entities until permits were issued.
- 4. Providing bidding phase services, construction management services, and full-time construction observation.

Construction was completed under budget.

#### POTESTA & ASSOCIATES, INC.

# PERMITTING AND CONSTRUCTION DRAWINGS FOR TRACE BRANCH AT ROBINSON WATER LINE EXTENSION

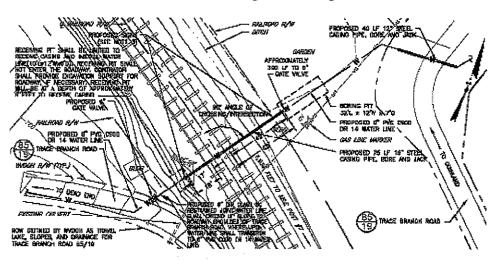
# **Boone County Public Service District**

#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District to prepare permit applications and construction drawings for the Trace Branch at Robinson Water Line Extension. Approximately 3,100 feet of 6-inch and 2-inch water line was designed with multiple stream crossings, roadway crossings, and a railroad crossing. Services associated with the design included:

- 1. Surveying for the railroad crossing and conducting direct correspondence with the CSX Transportation to determine acceptable railroad crossing criteria. Challenges with the railroad crossing design included complications associated with the close proximity of existing structures, and topographical restraints limiting casing length and water line depth;
- 2. Preparation of construction drawings that presented the proposed water line extension;
- 3. Preparation of permit applications to the West Virginia Division of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, United States Army Corps of Engineers, and CSX Transportation.

#### Railroad Crossing Plan Drawing



#### POTESTA & ASSOCIATES, INC.

# PERMITTING AND CONSTRUCTION DRAWINGS FOR STEPHENS AUTO/BETSY LANE WATER LINE EXTENSION

## **Boone County Public Service District**

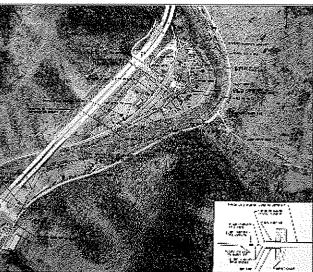
#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District (BDPSD) to prepare permit applications and construction drawings for the Stephens Auto/Betsy Lane water line extension. More specifically, POTESTA:

- Surveyed a proposed railroad crossing;
- Prepared construction drawings that presented the proposed water line extension; and
- Prepared permit applications to the West Virginia Department of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, United States Army Corps of Engineers and CSX Transportation.

The construction drawings depicted a water line extension that included approximately 4,800 linear feet of 6-inch and 2-inch water line, two fire hydrants, one river crossing, one railroad crossing and 19 potential customers.

Permits were issued and the water line extension was constructed using a combination of "in-house" and contractor personnel.



#### POTESTA & ASSOCIATES, INC.

# PERMITTING AND CONSTRUCTION DRAWINGS FOR TRACE BRANCH AT ROBINSON WATER LINE EXTENSION

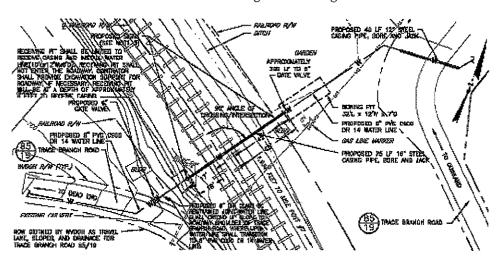
# **Boone County Public Service District**

#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District to prepare permit applications and construction drawings for the Trace Branch at Robinson Water Line Extension. Approximately 3,100 feet of 6-inch and 2-inch water line was designed with multiple stream crossings, roadway crossings, and a railroad crossing. Services associated with the design included:

- 1. Surveying for the railroad crossing and conducting direct correspondence with the CSX Transportation to determine acceptable railroad crossing criteria. Challenges with the railroad crossing design included complications associated with the close proximity of existing structures, and topographical restraints limiting casing length and water line depth;
- 2. Preparation of construction drawings that presented the proposed water line extension;
- 3. Preparation of permit applications to the West Virginia Division of Highways, West Virginia Department of Health and Human Resources, West Virginia Public Land Corporation, United States Army Corps of Engineers, and CSX Transportation.

#### Railroad Crossing Plan Drawing



#### POTESTA & ASSOCIATES, INC.

# POCA RIVER WATERLINE EXTENSION

# West Virginia American Water Company

Putnam County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to prepare a design and develop bidding/construction documents for approximately 68,000 linear feet of 6 to 8-inch diameter waterline following the Poca River in Putnam County. POTESTA utilized USGS topographic mapping enlarged to create base mapping for the project.

POTESTA performed field reconnaissance and coordination with public and private utilities to establish locations of underground utilities. Road drainage culverts were also added to the plan drawings.

Based on topography, existing utilities, and required service connection locations, POTESTA selected the proposed waterline location and prepared plan view drawings. The plan drawings included the proposed line location, type, and size; valve locations; hydrant locations; connection details; meter settings; road crossings; and stream crossings.

POTESTA developed bid quantities and an engineer's cost estimate and developed a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications to the West Virginia Department of Health, West Virginia Division of Highways, and West Virginia Division of Natural Resources Public Lands Corporation.

POTESTA provided construction management, administration and monitoring during the construction phase of the project.

POTESTA & ASSOCIATES, INC.

## PRELIMINARY ENGINEERING FOR THE JOE'S CREEK WATER LINE EXTENSION

#### **Boone County Public Service District**

#### Boone County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Boone County Public Service District (BCPSD) to complete preliminary engineering services associated with the proposed Joe's Creek water line extension in Boone County, West Virginia. The BCPSD was evaluating extension of water lines in the Joe's Creek area, and requested assistance with preliminary sizing of lines and other features, and preparation of estimates of probable construction and total project costs.

To complete the project, POTESTA:

- a. Performed a site reconnaisance to locate the pathway of the water line, identify potential customers, etc.;
- b. Met with utility officials to identify location and capacity of existing water system infrastructure;
- c. Completed hydraulic calculations to size the water line;
- d. Prepared a report summarizing the effort with attached calculations, drawing depicting a layout of the extension, and cost estimates.

The preliminary design anticipated approximately 9,000 linear feet of 8-inch water line, 7,000 linear feet of 6-inch water line, and 1,000 feet of 2-inch water line to serve 64 customers. Fire flow service was proposed for lower elevation areas. A 35-gallon per minute hydropneumatic booster station/tank was proposed to serve higher elevation areas. The preliminary estimate of probable construction cost was \$650,000.

POTESTA completed the project on a fast track (two-week) schedule.

#### POTESTA & ASSOCIATES, INC.

## PRELIMINARY INVENTORY OF TOWN OF PINEVILLE WATER SYSTEM

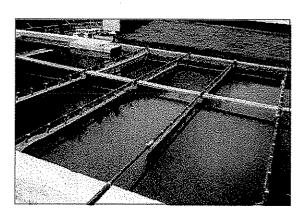
#### West Virginia-American Water Company

#### Pineville, West Virginia

The Town of Pineville operates a public water system that provides water to approximately 1,175 customers in and around Pineville. Included in the water system is a water treatment plant, water storage tanks, and booster stations. West Virginia-American Water Company retained Potesta & Associates, Inc. to prepare a preliminary inventory of the Town of Pineville water system.

To complete the preliminary inventory, POTESTA:

- Reviewed information on the Pineville water system provided by WVAWC.
- Reviewed West Virginia Bureau for Public Health (WVBPH) files on the water system.
- Met with Pineville water system
   officials to review and discuss the
   existing water system, including a
   "tour" of the water system, with
   particular emphasis on observation of
   the water treatment plant, water storage
   tanks and booster stations.



- Reviewed the latest copy of the WVBPH Sanitary Survey of the Pineville water system.
- Contacted the West Virginia Public Service Commission (WVPSC) to identify customer complaints.
- Contacted the WVBPH to discuss concerns they may have regarding the water system, including identification of Administrative Orders.
- Contacted WVAWC employees familiar with the water system to discuss concerns they may have.
- Prepared a report summarizing the preliminary inventory.

#### POTESTA & ASSOCIATES, INC.

## RED JACKET REFUSE PILE CONSTRUCTION LAYOUT-AML RECLAMATION PROJECT

#### **Thaxton Construction Company**

Mingo County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by Thaxton Construction Company to provide construction layout for the Red Jacket Refuse Pile AML Project in Mingo County, West Virginia. Thaxton Construction Company was contracted by the West Virginia Division of Environmental Protection (WVDEP) Office of Abandoned Mine Lands and Reclamation (AML) to perform reclamation on an AML refuse pile.

Proposed reclamation included regrading a 500-foot long coal refuse pile and revegetation. Construction documents were prepared by others.

#### POTESTA's tasks for the project include:

- 1. Survey of "pre-construction" and "post-construction" cross sections.
- 2. Computation of (or assistance with) certain as-built quantities, including earthwork and revegetation.
- 3. Submittal of "post-construction" cross section drawings depicting existing and final grades.

POTESTA & ASSOCIATES, INC.

## RELOCATION OF WATER LINE City of Philippi

#### Philippi, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to prepare construction documents, prepare permit applications, and provide as needed construction monitoring for relocation of water lines disrupted by the West Virginia Division of Highways' (WVDOH) Philippi Bridge Bypass Project.

Included in the proposed relocation was:

- ♦ 1000 feet of 12-inch ductile iron pipe,
- ♦ 1100 feet of 8-inch ductile iron pipe,
- ♦ 800 feet of 6-inch ductile iron pipe,
- ♦ 200 feet of 4-inch ductile iron pipe,
- ♦ 1000 feet of service line,
- ♦ 13 valves, and
- Associated appurtenances such as meters, fire hydrants, and steel casing.

Care was taken to relocate lines to areas not interfering with proposed highway construction, existing utilities, and other proposed relocated utilities.

POTESTA prepared plan drawings showing the relocated water line; detail drawings showing trenches, pavement replacement, stream crossings, valve settings, pay items, and quantities; and specifications. Permit applications were prepared and submitted to the West Virginia Bureau for Public Health, United States Army Corps of Engineers, and the West Virginia Public Lands Corporation.

Work was coordinated with the WVDOH, City of Philippi, and another engineering firm preparing the design of relocated sanitary lines.



#### POTESTA & ASSOCIATES, INC.

### SOURCE WATER ASSESSMENT PROTECTION PROGRAM

#### West Virginia Bureau for Public Health

Potesta & Associates, Inc. (POTESTA) assisted the West Virginia Bureau for Public Health (WVBPH) by providing source water assessment services associated with WVBPH's Source Water Assessment and Protection Program (SWAPP). The source water assessment locates potential contaminant sources that are within a zone of critical concern (ZCC) along the intake stream and its tributaries. POTESTA's services included:

- 1. Obtained and reviewed water quality data for violations of maximum contaminant levels allowed by the Environmental Protection Agency and obtained United States Geological Survey stream flow data.
- Surveyed ZCC for potential contaminant sources (PCS) that could impact the
  intake stream and confirmed their location using a handheld Global Positioning System
  (GPS).
- 3. Input PCS stream flow, water quality and land area data into Microsoft Access database.
- 4. Merged Microsoft Access Database with ArcView 3.2a software to provide a graphical representation of the PCS data collected from the field.
- 5. Prepared digital topographic mapping, including rivers, major roadways and potential contaminant sources for each public water system utilizing ArcView 3.2a software, GPS data collected during the field survey, and data from the WVBPH.
  - Prepared detailed summary reports for each public water system identifying PSCs and issues such as vandalism at the drinking water treatment plant and public water system plans for low water situations.

The West Virginia Bureau for Public Health used the electronic format maps POTESTA created using ArcView 3.2a software as well as data collected during the windshield survey to target allocation of available funds for further investigation and improvement of the public water systems.



Map showing ZCC (red) and PCSs (circles) against 7.5' topographic map.

#### POTESTA & ASSOCIATES, INC.

## SPITE ROAD WATERLINE EXTENSION CONSTRUCTION ADMINISTRATION AND OBSERVATION

#### West Virginia-American Water Company

Putnam County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia American Water Company (WVAWC) to provide construction administration/observation for construction of approximately 13,000 linear feet of 2-inch and 8-inch diameter waterline following Spite Road in Putnam County.

As part of POTESTA's construction administration and monitoring, POTESTA:

- 1. Attended meetings as needed;
- 2. Assisted with review of change orders;
- 3. Provided a nearly full-time representative to observe construction;
- 4. Reviewed contractor invoices and made recommendations regarding payment;
- 5. Prepared weekly reports summarizing construction activities;
- 6. Provided record drawings showing "as-built" features;
- 7. Handed out "welcome packets" to customers.

Construction proceeded smoothly, and the water line was installed. Throughout the project, POTESTA interacted with WVAWC, the West Virginia Division of Highways (WVDOH), and other entities with an interest in the project.

POTESTA & ASSOCIATES, INC.

#### TUCKER COUNTY INDUSTRIAL PARK CONSTRUCTION OF ADDITIONAL WATER AND SEWER LINE

#### **Tucker County Development Authority**

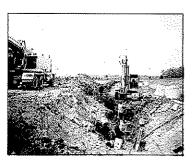
#### Tucker County, West Virginia

After completion of initial construction at the Tucker County Industrial Park, additional monies remained. The owner, Tucker County Development Authority, authorized Potesta & Associates, Inc. (POTESTA) to prepare bidding documents for construction of additional water and sewer lines at the site, using the remaining monies. More specifically, POTESTA:

- 1. Completed ground survey to develop topographic mapping to reflect "as-constructed" conditions after the first phase.
- 2. Prepared drawings and specifications depicting the construction of an additional 1,000 feet of gravity sewer line including five manholes, and 500 feet of additional water line, including construction through wetlands and across a stream.
- 3. Prepared permit applications for crossing of the stream and wetlands, and to obtain approval from the West Virginia Bureau for Public Health.
- 4. Prepared bidding documents and coordinated obtaining approval from the United States Economic Development Agency.
- 5. Presented the project at a pre-bid meeting.
- 6. Compiled contractor bid information.
- 7. Provided construction phase services, including attending a preconstruction meeting, reviewing and commenting on shop drawings on manholes, pipe and other materials; and providing nearly full-time construction observation services.

The additional water and sewer lines were successfully installed.





#### POTESTA & ASSOCIATES, INC.

#### TUCKER COUNTY INDUSTRIAL PARK

#### **Tucker County Development Authority**

#### Davis, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained to prepare construction documents for all the infrastructure improvements for Tucker County's new 162-acre industrial park along WV Rt. 93 near



Davis, West Virginia. The site will provide almost 80 acres of developable land for new business interests in Tucker County.

The site includes significant wetlands within the developable acreage, requiring POTESTA to develop both utility extensions (water and sewer) and access road design that avoided most of the wetlands, yet serviced the entire park. The water and sewer lines for the park tie into the City of Davis's existing system. Over 8,000 linear feet of 8" water line and 6,500 linear feet of 3" force main sewer line were extended from Davis.

A 75-gallon per minute lift station was designed within the park at the lowest possible elevation and located to allow gravity sewer to follow the new access road, providing nearby sewer service to the most developable land.

The construction cost for this project was \$1.1 million and the design was fast-tracked and completed in a 4-month time frame because of grant requirements of the U. S. Economic Development Administration. Construction was completed within the grant time frame. The project entailed permit applications from the U. S. Army Corps of Engineers for wetland



disturbance, WV Department of Health for sewer and water extensions, WV Department of Environmental Protection for stormwater management and erosion control (NPDES) and WV Public Lands Corporation for stream crossings. Road design was reviewed and approved by the WV Division of Highways because the Division was providing grant funding for the 2,000-foot access road.

#### POTESTA & ASSOCIATES, INC.

## UNITED STATES ROUTE 60 UPGRADE West Virginia-American Water Company

Putnam County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by West Virginia-American Water Company (WVAWC) to prepare a design and develop bidding/construction documents for approximately 18,000 linear feet of 16-inch diameter waterline following United States Route 60 in Putnam County. POTESTA utilized USGS topographic mapping enlarged to create base mapping for the project.

POTESTA performed field reconnaissance and coordination with public and private utilities to establish locations of underground utilities. Road drainage culverts were also added to the plan drawings.

Based on topography, existing utilities, and required service connection locations, POTESTA selected the proposed waterline location and prepared plan view drawings. The plan drawings included the proposed line location, type, and size; valve locations; hydrant locations; connection details; meter settings; road crossings; and stream crossings.

POTESTA developed bid quantities and an engineer's cost estimate and developed a bid form using WVAWC approved format. POTESTA was also responsible for preparing permit applications to the West Virginia Department of Health, West Virginia Division of Highways, and West Virginia Division of Natural Resources Public Lands Corporation.

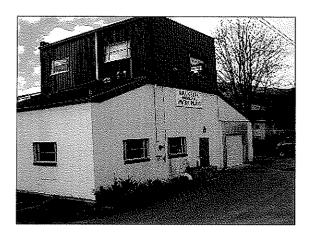
#### POTESTA & ASSOCIATES, INC.

## WATER LOSS EVALUATION PLAN FOR THE MILL CREEK WATER DISTRIBUTION SYSTEM Town of Mill Creek

#### Randolph County, West Virginia

The Town of Mill Creek operates a potable water treatment and distribution system that serves 370 residential customers and 10 industrial/commercial customers. The system dates back to the early 1900s, with major upgrades occurring in the 1960s, and extensions added in the 1990s. The West Virginia Department of Health and Human Resources had expressed concern for the large quantities of unaccountable water produced at the Mill Creek water plant (over 50% of total water production). The Town of Mill Creek worked with other agencies to find possible leaks,

but was not able to locate a significant problem.



Potesta & Associates, Inc. (POTESTA) was retained to prepare a plan to evaluate the distribution system to identify areas that experience water loss. In order to create the plan, POTESTA obtained the town's water distribution system mapping and met with a town representative to review the system. With this information, POTESTA developed a plan to isolate various regions throughout the water distribution system and install leak detection equipment to monitor each region. Provided in the plan were detailed instructions on how to

isolate each region and estimates of construction and total project cost to install the leak detection equipment.

Also included in the water loss evaluation plan was a second option to improve the water distribution system. This option included replacement of approximately 2,000 feet of a water main that had reoccurring maintenance issues and the addition of a booster station to improve service to customers with low water pressure. Construction and total project cost estimates were also provided for the second option.

POTESTA continues to work with the Town of Mill Creek to assist in monitoring the leak detection equipment and evaluation of the results, and in obtaining funding for implementation of improvements.

#### POTESTA & ASSOCIATES, INC.

# WEST VIRGINIA INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL APPLICATION FOR THE LICK CREEK - PHASE I WATER LINE EXTENSION

#### West Virginia-American Water Company

#### Boone County, West Virginia

POTESTA was selected by West Virginia-American Water Company (WVAWC) to prepare an application package to the West Virginia Infrastructure and Jobs Development Council (WVIJDC) to help obtain various funding sources for the Lick Creek-Phase I water line extension in Boone County. The application package was prepared on behalf of the Boone County Public Service District and included a Preliminary Application Form and a Preliminary Engineering Report (PER).

POTESTA completed the Preliminary Application Forms consisting of the following sections:

- Administrative and Identifying Information and Data
- Engineering Information and Data
- Budget and Financial Information
- Job Creation
- Wastewater Discharge and Air Quality

Included in the Preliminary Application Form was the PER. The report addressed topics such as existing conditions, future conditions, project alternatives, plan selection and public participation, environmental concerns, project summary and schedule, lands and rights-of-way, public health benefits, and evidence of filing and compliance.

The preliminary design anticipated approximately 17,700 linear feet of 8-inch water line, 900 linear feet of 6-inch water line, and 3,475 feet of 2-inch water line to serve 190 customers. Fire flow service was proposed. Additionally, the water line extension included upgrading of existing services. The preliminary estimate of probable construction cost was \$1,300,000. The US Army Corps of Engineers was proposed to contribute \$1,000,000 and WVAWC would contribute \$300,000.

Based on the findings by the WVIJDC, this project was determined to be technically feasible within the guidelines of the Infrastructure and Jobs Development Act and WVIJDC provided a recommendation that the proposed funding scenario be pursued.

#### POTESTA & ASSOCIATES, INC.

# WVIJDC APPLICATION AND PRELIMINARY ENGINEERING –TOWN OF CEREDO MUNICIPAL WATER DEPARTMENT DISTRIBUTION SYSTEM UPGRADE

**Town of Ceredo** 

#### Wayne County, West Virginia

Potesta & Associates, Inc. (POTESTA) was retained by the Town of Ceredo to evaluate deficiencies in its water distribution system and prepare a funding application for monies to implement upgrades to the system, including deficiencies identified in an order from the West Virginia Public Service Commission. More specifically, POTESTA:

- 1. Evaluated two alternatives for the upgrade that generally differed by whether West Virginia American Water or the Town of Ceredo would serve approximately 215 existing customers east of Twelvepole Creek. Each alternative included upgrades in water lines, installation of fire hydrants, and replacement of the town's approximate 100-year old reservoir. Preliminary estimates of probable construction cost, operation/maintenance costs, debt service, total project costs, and potential customer rates were estimated for each alternative. One alternative had an estimated total project cost of \$2,100,000, while the other had an estimated total project cost of \$4,300,000. Results of the evaluation were summarized in a preliminary engineering report.
- 2. Prepared a West Virginia Infrastructure and Jobs Development Council (WVIJDC) preliminary application for funding of the recommended alternative. The West Virginia Drinking Water Treatment Revolving Fund was identified as the source of funding. The WVIJDC application and preliminary engineering report were then submitted to the WVIJDC for approval.

#### POTESTA & ASSOCIATES, INC.